SenseiiWyze

# PREDICTING TECH READINESS UNDER PRESSURE
# 4-YEAR CASE STUDY 2022-2025

| 87% | 58%+ | 115.5% |
|---|---|---|
| **Behavioral Prediction Accuracy** | **Program Completion Rate** | **Average Salary Increase** |
| Validated over 1,800 users | Up from 7.93% baseline | $31,200 → $67,250 |

## The Case That Started Everything

Requested by a group of urban parents, Ida Byrd-Hill secured a Michigan post-secondary vocational school license in March 2019 to create **Automation Workz Institute, Inc. (Automation Workz)** — a Cisco Networking Academy offering IoT, Network Engineering, and Cybersecurity curriculum. Its first tuition-funded cohort launched in 2020.

### Miranda Boyd: The Gap That Built the Engine

**Miranda Boyd**

All 40 learners in the inaugural cohort held bachelor's or master's degrees in liberal arts — except **Miranda Boyd**, a restaurant manager laid off from Greektown Casino. Miranda kept academic pace with her degreed colleagues and graduated in the same cohort. Then the gap appeared.

Miranda accepted a **$52,000** job offer. Her degreed peers accepted offers ranging from **$78,000 to $117,000**. That was not a skills gap. It was a **data gap** — and it launched the research that became SenseiiWyze™.

When Automation Workz launched its first Detroit workforce development cohort of long-term unemployed and front-liners, the completion rate was 7.93% — a catastrophic divergence from the 88% completion rate of the all-degreed cohort. The training was not the problem. The assessment infrastructure was.

### The Neuroscience Behind the Data Gap

We discovered AI and new emerging tech is creating technostress, which is multiplicative amongst participants. It taxes the same prefrontal systems required to manage every other stressor. Technostress is "*a modern disease of adaptation caused by an inability to cope with new computer technologies in a healthy manner.*" (Brod,1984)

The Detroit Neighborhood Health Study assessed 1,306 randomly selected African American residents and found that 87.2% had experienced at least one traumatic event in their lifetime, with 17.1% meeting criteria for probable lifetime PTSD (Goldmann et al., 2011). Urban primary care research documents that up to 46% of people in low-income urban communities carry the neurological effects of PTSD — not from a single event, but from years of compounding stress, loss, and survival (Alim et al., 2006).

PTSD rewires the brain, reducing prefrontal cortex activity and diminishing the capacity for planning, goal persistence, and imagining a future self. Behavioral economists Sendhil Mullainathan (Harvard) and Eldar Shafir (Princeton) demonstrated in *Science* magazine that when a person operates under

constant financial pressure, the prefrontal cortex never fully rests — consuming processing space normally reserved for planning, problem-solving, and learning, reducing effective functioning by the equivalent of **13 IQ points** (Mullainathan & Shafir, 2013).

The behaviors of disengagement, avoidance, and dropout looks like motivation problems from the outside. They are not. They are the predictable outputs of a nervous system reshaped for survival — not for thriving.

Research literature has created a comprehensive Technostress framework with five documented stress-producing dimensions. Tarafdar et al. (2007) documented that technology stressors degrade performance, productivity, role functioning, and psychological well-being. Jyoti et al. (2025) show that techno-stress unfolds as a process: threat appraisal → techno-anxiety → elevated cognitive load → techno-exhaustion. AI-specific research (Frontiers in Psychology, 2025) identifies loss of perceived agency, algorithmic bias, reduced control, and cognitive withdrawal as central AI-era risks.

| DIMENSION | PARTICIPANT EXPRESSION | READINESS CONSEQUENCE |
|---|---|---|
| **TECHNO-OVERLOAD** | AI systems increase information volume, speed, and simultaneous data streams beyond human processing capacity. | Cognitive saturation, reduced working memory, decision fatigue, elevated error risk. |
| **TECHNO-INVASION** | The shift ends. The nervous system does not. Heightened vigilance, activation, and moral weight follow the warfighter home. | Family receives the technostress without operational context. Spouse and children misread withdrawal as relational rejection. |
| **TECHNO-COMPLEXITY** | Participants must master new AI tools and maintain full mission performance at the same time creating a dual cognitive load. | Skill confidence becomes a stress regulator. Uncertainty increases anxiety and avoidance behavior. |
| **TECHNO-INSECURITY** | Algorithms can appear faster or more confident than human judgment — creating over trust, under trust, or bias. | Automation bias and algorithm aversion emerge under pressure, degrading independent judgment at the critical moment. |
| **TECHNO-UNCERTAINTY** | Platforms change. Capabilities update. Last month's procedures do not apply to this month's system. Participant never reaches steady state. | Exhausts executive function and reduces the recovery capacity needed for family reconnection and physical healing. |

We discovered technostress became a family readiness problem the moment participants needed to complete involved digital simulation homework. Family members became upset as participants were immersed in homework and thus were unavailable for other activities. This family dissatisfaction was the primary documented reason participants quit training.

We decided the family needed a shared success framework to reduce training dropouts.

# Seeing the Capability No Transcript Can Document

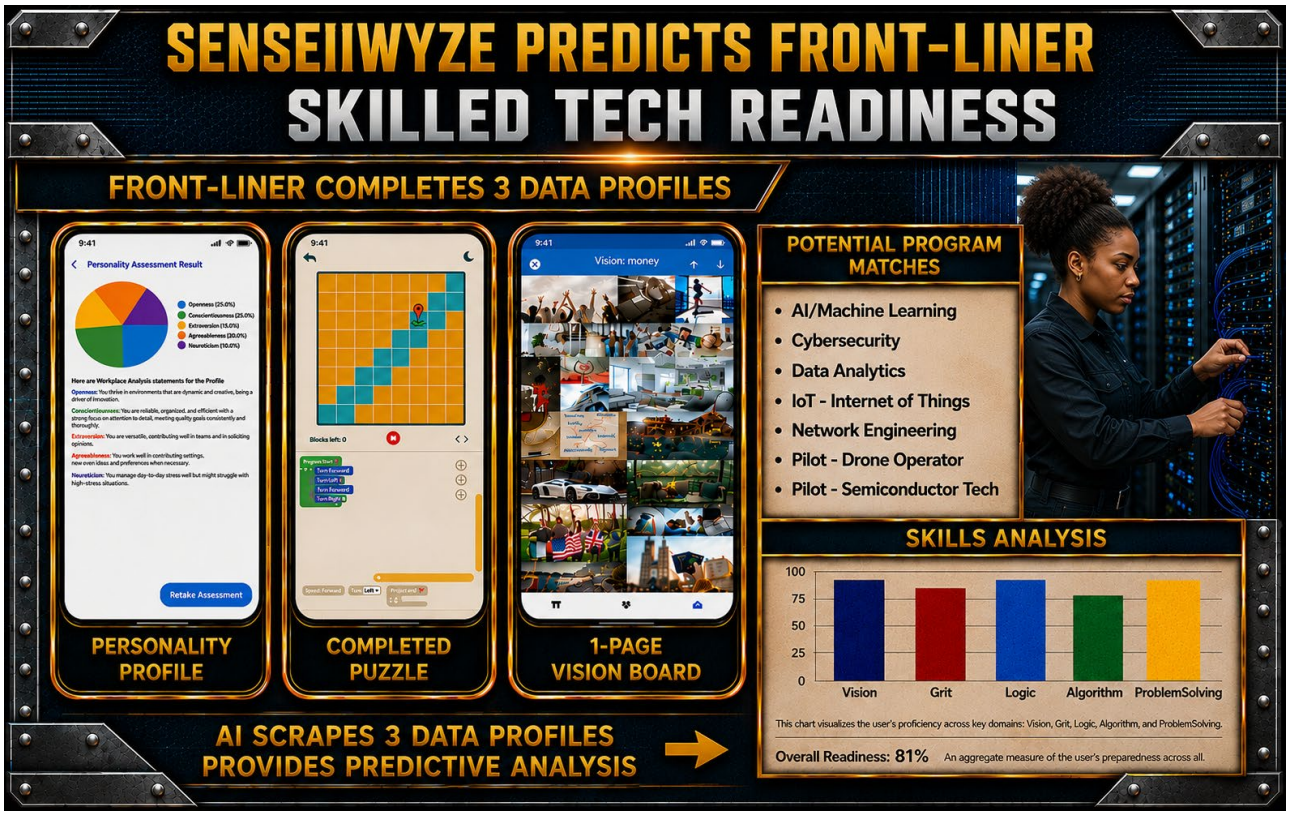
Automation Workz CEO Ida Byrd-Hill commissioned her son, CTO **Kevin Hill** — a full-stack data engineer with expertise across machine learning, fintech, and distributed systems — to develop an AI-powered behavioral intelligence engine to predict technology readiness under pressure. The goal: measure cognitive potential in users whose formal assessments are systematically suppressed by financial stress and PTSD.

Traditional assessments measure what knowledge or skills a person has previously been given access to. **SenseiiWyze™ measures how a user's brain actually operates.** Miranda managed a 75-person restaurant team, juggled shift schedules, and troubleshot point-of-sale failures during dinner rushes — exercising algorithmic thinking and systems logic every working day. That capability was invisible on her resume. While she handled restaurant stress, she suffered from technostress in the interviewing process. It surfaced in her SenseiiWyze™ profile. SenseiiWyze™ was built to detect this process behaviorally — before the cost becomes visible.

## Three Inputs. One Precise Readiness Prediction.

SenseiiWyze™ is a platform with a mobile app for end-users and web-based dashboard for leaders to access collective user data.

Here is a snippet of the data profiles completed on the user's smartphone — no testing center, no appointment, no academic prerequisite. The app collects three distinct behavioral data profiles, each capturing a dimension of cognitive architecture that formal credentials systematically miss.



## PROFILE 1 BIG 5 PERSONALITY PROFILE


The modern Big Five personality model traces its roots to 1961, when Air Force researchers Ernest Tupes and Raymond Christal found that five broad factors repeatedly appeared:

**Surgency/Extraversion**
**Agreeableness**
**Dependability/Conscientiousness**
**Emotional Stability**
**Culture/Openness**.

Their report, *Recurrent Personality Factors Based on Trait Ratings*, (Tupes & Christal, 1961) became one of the earliest empirical foundations for what later became known as the Big Five model. Warren Norman brought it into mainstream psychology in 1963, and Costa and McCrae formalized it in the 1980s–90s, developing the NEO Personality Inventory and coining the OCEAN acronym (Costa & McCrae, 1992).

In the SenseiiWyze™ Engine, the Big 5 profile measures the behavioral and emotional dimensions that determine how a user engages with learning, sustains effort under pressure, collaborates with others, and navigates setback — competencies that no skills test has ever been designed to measure. AI-based personality prediction from behavioral and social data has demonstrated measurable predictive power for career readiness and technology training success (Jain, 2025; Amichai-Hamburger et al., 2026).

| | | | |
|---|---|---|---|
| O | **Openness to Experience**<br>*Imagination vs. Consistency* | ▲ HIGH<br>Creative, embraces change, loves new ideas. | ▼ LOW<br>Prefers routine, structure, and familiar processes. |
| C | **Conscientiousness**<br>*Organized vs. Spontaneous* | ▲ HIGH<br>Organized, reliable, meets deadlines consistently. | ▼ LOW<br>Flexible, spontaneous; may struggle with follow-through. |
| E | **Extraversion**<br>*Outgoing vs. Reserved* | ▲ HIGH<br>Thrives in leadership, teamwork, and client-facing roles. | ▼ LOW<br>Performs best in independent, focused work environments. |
| A | **Agreeableness**<br>*Cooperative vs. Competitive* | ▲ HIGH<br>Cooperative, empathetic, builds strong team relationships. | ▼ LOW<br>Direct and competitive; drives results through challenge. |
| N | **Neuroticism**<br>*Sensitive vs. Stable* | ▲ HIGH<br>Prone to stress and anxiety in demanding environments. | ▼ LOW<br>Calm, composed, and resilient under pressure. |

## PROFILE 2 SENSEII GAMES — MOBILE COGNITIVE PROCESS

Senseii Games is a precision cognitive instrument delivering thirty timed levels across three applied mathematical domains on a single mobile device. It is not a training program. It is a behavioral assessment engine — generating an unfiltered, real-time profile of how a user builds algorithms, processes spatial problems, applies algebraic logic, and recovers from failure.

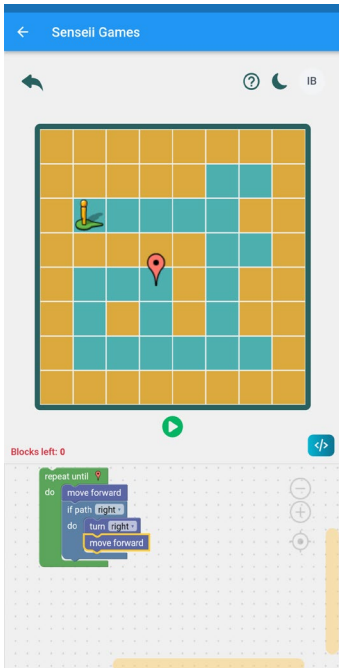
Fun is not a feature. **Fun is the data collection strategy.** Gamification — by engaging users' intrinsic drives for competition, achievement, and recognition — transforms evaluation from an anxiety-producing event into an immersive, engagement-driven experience that surfaces authentic cognitive performance (Deterding et al., 2011; Zeng et al., 2024; Wang & Lieberoth, 2022).

**The Department of War Validated This Methodology Decades Ago.**

The United States Department of War established that simulated pressure is the only environment that reliably surfaces authentic behavioral performance data at scale. Serious games have since been validated as essential military assessment tools (Smith, 2010; Stathakarou et al., 2023). Senseii Games applies that same DoW-validated, pressure-calibrated assessment architecture to the front-liner workforce.

### Applied Logic — 10 Levels. The Maze.

*Sequential Reasoning. Pattern Recognition. Algorithmic Decision-Making. All on the Clock.*



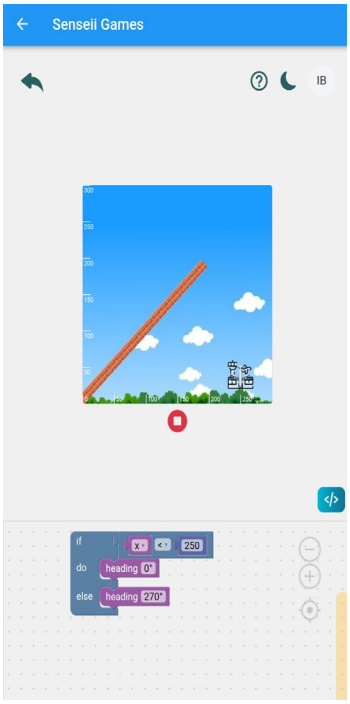

The Maze series is a timed applied logic assessment. Ten levels. Ten increasingly complex spatial puzzles. One clock that measures not just whether a user solves the problem — but how fast, how efficiently, and with what behavioral signature they do it.

Every move is a data point. Every pause is a data point. Every retry after failure is a data point. The Maze does not ask users what they know. It watches how they think — and it does so in an environment engaging enough that users are not performing for the assessment. They are performing for themselves. Peer-reviewed research confirms that implicit behavioral traces captured during gameplay powerfully predict problem-solving aptitude, with high-potential individuals exhibiting statistically distinct patterns — higher puzzle completion rates, fewer pauses, fewer surrender actions — all surfaced without a single self-reported response.

Maze completion data provides a validated pre-intervention baseline measure of logical reasoning speed and algorithmic thinking velocity — cognitive competencies with direct predictive validity for performance in cybersecurity, artificial intelligence, and network engineering career pathways. The Maze does not predict who has been trained. **It predicts who is ready to be.** (MentalGame Research Group, 2025).

## Applied Geometry — 10 Levels. The Plane.

*Spatial Reasoning. Structural Problem-Solving. Execution Speed Under Pressure.*




The Plane series is a timed applied geometry assessment. Ten levels of progressively complex spatial and structural challenges — delivered on mobile, measured in seconds, generating a real-time map of geometric aptitude that no credential, transcript, or skills inventory has ever been designed to produce.

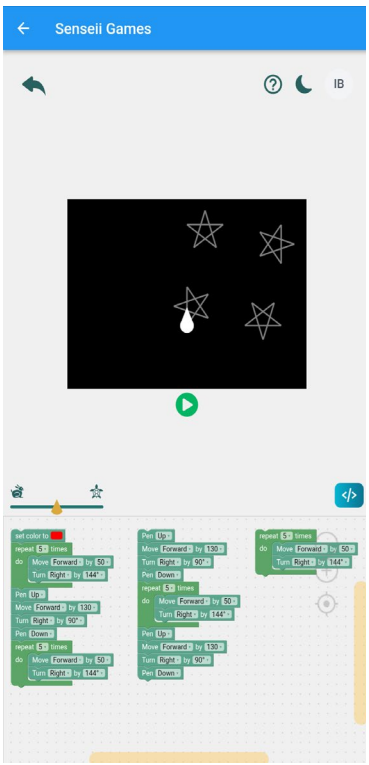
The critical distinction the Plane series draws — and that workforce research has been chronically slow to operationalize — is the gap between a participant who *understands* geometric reasoning and a participant who can *execute* it under pressure. That gap is precisely where training investment succeeds or collapses. Senseii Games produces execution data.

The evidence for the mobile game trajectory approach is substantive. Nine thousand participants. One hundred sessions. A validated longitudinal cognitive assessment instrument — available on any mobile phone, without a testing center, without a proctor, and without the scheduling friction that kills research participant retention.

The Plane series produce the spatial aptitude data that identifies IoT, systems architecture, and engineering design. (Bonnechère et al., 2020).

## Applied Algebra — 10 Levels. The Turtle.

*Algebraic Fluency. Translational Speed. Mathematical Momentum.*




The Turtle series is a timed applied algebra assessment. Ten levels. Ten escalating problem sets. One clock measuring the rate at which participants translate algebraic principles into executable solutions under pressure.

**Mathematical fluency is a performance variable — not a binary credential.** Getting the right answer is table stakes. Getting the right answer fast — under pressure, across escalating complexity, on a mobile screen with a running clock — is the cognitive signature of a tech-ready mind. The Turtle clock measures that signature with a granularity unavailable from any transcript, placement test, or prior workforce assessment instrument.

Mobile Engines reliably surface authentic cognitive performance data within exploratory, low-threat environments — producing the kind of honest behavioral signal that structured, traditional assessment instruments routinely fail to generate. The Turtle series captures that signal level by level, exposing where participants carry genuine algebraic fluency and where they are papering over gaps with guesswork — a distinction that explains differential training outcomes across participant populations regardless of prior educational attainment, credential history, or program completion status. (Kazimoglu et al., 2012).

## PROFILE 3 1-PAGE DIGITAL VISION BOARD

The SenseiiWyze™ one-page digital vision board is the most emotionally charged and predictively powerful instrument within the Engine. Users stall. They go quiet. Some become visibly distressed. That is not a design flaw. That is the data.

When a person cannot picture their life one to two years from now, it is not imagination they lack — it is permission. Chronic stress and repeated unmet goals train the brain to stop forming specific hopes. SenseiiWyze™ treats that moment as the first behavioral signal of the assessment — and builds everything that follows around expanding it.

### The Orientation: 12 Categories. One Conversation.


Before a single image is selected, during app orientation, the Automation Workz coach introduces the user to 12 life categories — the full landscape of what a human life can contain. The coach introduces each category. The user does the talking — explaining, defining, and deciding what they want their life to look like, often for the first time in a very long time.

| | | | |
|---|---|---|---|
| Career Growth | Wealth | Wellbeing | Mental Health |
| Family Life | Romance | Social | Life Learning |
| Spiritual | Personal Joy | Legacy | Housing |

The vision board becomes a living behavioral baseline. Research by Mathew (2020) from Arizona State University confirmed that vision-based motivational anchoring significantly increases program completion, with users demonstrating measurably stronger goal pursuit when motivation is grounded in self-generated visual imagery.

The participant's personal vision board is shared with family members to create a unified family vision board. Once this step in the admission process occurred, learning completion rate increased from **7.93%** to **75%** and then stabilized at **58%**.

Research confirms that when people clearly identify what they want across every area of life, they stay more committed, pursue goals longer, and are far more likely to follow through (Mathew, 2020; van Knippenberg & Sitkin, 2024)

### The App: The Internet Goes Looking for Your Future

No stock photos. No pre-approved imagery. The SenseiiWyze™ mobile app connects to a live internet image API returning results as specific and personal as the user's own search terms. Research confirms that AI-powered behavioral analysis of image selection profiles individuals according to what they actually choose — not what they declare — producing behavioral data no traditional instrument can replicate. Every search term, every image reviewed, every image selected

or passed over — all of it logged, timestamped, and feeding the AI before a single formal assessment question has been answered. (Ramon et al., 2021).

## What the AI Learns: Five Signals. One Predictive Profile.

**1**

### Goal Clarity — How Specifically Does the User Define Their Future?

A user who searches '3 bedroom 2 bath brick tudor house' and pins an exact home on an exact street is a fundamentally different candidate than one who pins a generic image labeled 'nice house.' The AI scores goal clarity across every category — producing a composite profile that predicts goal persistence and program completion before training begins. (Rawolle et al., 2017)

**2**

### Color Psychology and Authenticity — What Do the Colors Reveal?

Color operates beneath conscious social filtering — making it one of the most behaviorally honest signals a human generates. Warm palettes signal energy and extraverted motivation; cool palettes signal focused precision; muted selections signal emotional ambivalence. AI systems can analyze visual imagery and accurately assess emotional valence, motivational direction, and arousal level across more than 1,300 validated images. (Torchiano et al., 2025)

**3**

### Emotion — What Does the User Actually Feel About Their Future?

Images reveal the emotional relationship a user has with their goals. A financial category filled with debt-relief imagery expresses a different driver than wealth-building imagery. Research across 6,000 users confirmed that fine-grained visual preferences carry strong predictive power for understanding deeper emotional states and motivational drivers, whether the emotion is fear, love, hate. (Segalin et al., 2016)

**4**

### Future Orientation — How Far Into the Future Does the User See?

Survival imagery signals a contracted temporal horizon and high dropout risk. Ten-year aspirations — legacy building, generational wealth, community impact — signal extended future orientation that predicts long-term engagement. The AI produces a future orientation index that tells coaches exactly where intervention is needed. (Ramon et al., 2021; Shue et al., 2025)

**5**

### Motivation — What Is the Fuel Behind This Person's Goals?

Motivation is a composite — and the vision board surfaces its architecture with precision no survey achieves. Is this user driven by love, achievement, survival, or legacy? The AI identifies the motivational architecture, the coaching team builds the strategy, and SenseiiWyze™ monitors alignment in real time from intake through placement. (Mathew, 2020; Yao et al., 2015)

Many front-liners arrive having spent years managing the next crisis. They have never laid out their twelve categories of goals for their life. Every image is a data point. Every color is a disclosure. Every pin is a prediction.

## Outcomes: What Happened When SenseiiWyze™ Worked

| 87% | 58%+ | 115.5% |
|---|---|---|
| **Behavioral Prediction Accuracy** 1,800+ users, 2022–2025 | **Program Completion Rate** Up from 7.93% baseline | **Average Salary Increase** $31,200 → $67,250 |

SenseiiWyze™ achieved 87% behavioral prediction accuracy validated over 1,800 users from 2022 to 2025. Approximately 350 users were selected to attend AI/Machine Learning, Cybersecurity, Data Analytics, IoT, or Network Engineering tech skill coaching — 203 with fully completed SenseiiWyze™ profiles and 147 without. Those who completed all three profiles prior to admissions completed training and moved into tech careers.

Before SenseiiWyze™, Automation Workz's completion rate was **7.93%** — consistent with national norms for technical training programs serving economically disadvantaged adults without behavioral support. Following full implementation, completion rates rose to **58%+** with the same population, in the same city, pursuing the same certifications.

The average graduating salary is **$67,250** — a 115.5% increase over typical pre-program earnings of $31,200. Thirty percent of all graduates received and accepted salaries greater than **$80,000**.

## Tech Skill Coaching: Building the Person and the Credential


Tech Skill Coaching, pioneered by IBM and scaled by Automation Workz, is a hybrid of digital training, workplace readiness, and strength-based mentoring. Instead of delivering lectures imparting knowledge, it coaches learners through practical simulations, real-world assignments, career mentoring/ networking and continuous feedback, ensuring participants apply what they learn in real job settings.

This coaching approach targets both digital skills (AI/ machine learning, cybersecurity, data analysis, IT support) and culturally adaptive training skills (emotional intelligence, communication, creativity, teamwork, and problem-solving), which are increasingly vital in tech-driven roles.

SenseiiWyze™ is the foundation for tech skill coaching — closing the gap the 2021 cohort exposed between the $52,000 offer and the $117,000 offer. Key program components:

- **Instructor-Coach** fuses deep technical expertise with behavioral coaching credentials — connecting a participant's warehouse diagnostic experience directly to network troubleshooting logic, producing recognition rather than merely motivation.
- **Motivational Monday & Thinkful Thursday** are 90-minute weekly group coaching sessions: Mondays discharge accumulated emotional weight and recalibrate the nervous system toward capability; Thursdays expand users' possible-self models with specific, verifiable proof that the destination is real.
- **Extended Office Hours** (8 AM–9 PM, Monday through Saturday) eliminate the dropout window identified by research in weeks 6–10, when cumulative stress peaks.
- **Mentor Matching** pairs every participant with a technology professional mentor for the full program, powered by SenseiiWyze™ behavioral compatibility analysis. For the non-traditional learner who has never met a technology professional with a background like hers, the mentor is proof of concept in person.
- **Virtual Internship/Job Simulation** case study assignments issued by real employers such a Mastercard, JP Morgan Chase Johnson & Johnson, Siemens and Walmart, producing portfolio evidence under actual employer scrutiny — answering not just 'What can you do?' but 'What have you done, and who can vouch for your work?'

## Where Automation Workz Stands Today

Miranda Boyd — whose 2021 experience generated the founding observation of the SenseiiWyze™ framework — did not remain at $52,000. She earned her Cisco Certified Support Technician certification and a Python credential, became an Automation Workz Adjunct Professor with **80% learner success rates**, and now serves as Automation Workz Director of Performance Coaching. The data point that identified the gap, became the person who helps close the gap with every cohort.

**PURCHASE SENSEIIWYZE™ HERE**

**www.autoworkz.ai**

# BIO

**Ida Byrd-Hill** **Behavior Economist/ Technologist/Speaker**

CEO, Automation Workz Institute and Automation Workz Foundation

Graduate of the University of Michigan - Ann Arbor with a BA, in Economics and Jack Welch Management Institute with an MBA, People Management/Strategy.

Grew a financial advisory firm from 0 to $620 million AUM. She generated $40 Million of Mortgage Loans Annually. Built a cyber alternative high school for 9th-12th graders. Trained 17,000+ persons in STEM including 350 post-secondary learners in AI/Machine Learning, Cybersecurity Ops, Data Analytics, IoT/ Sensor Systems and Network Engineering.

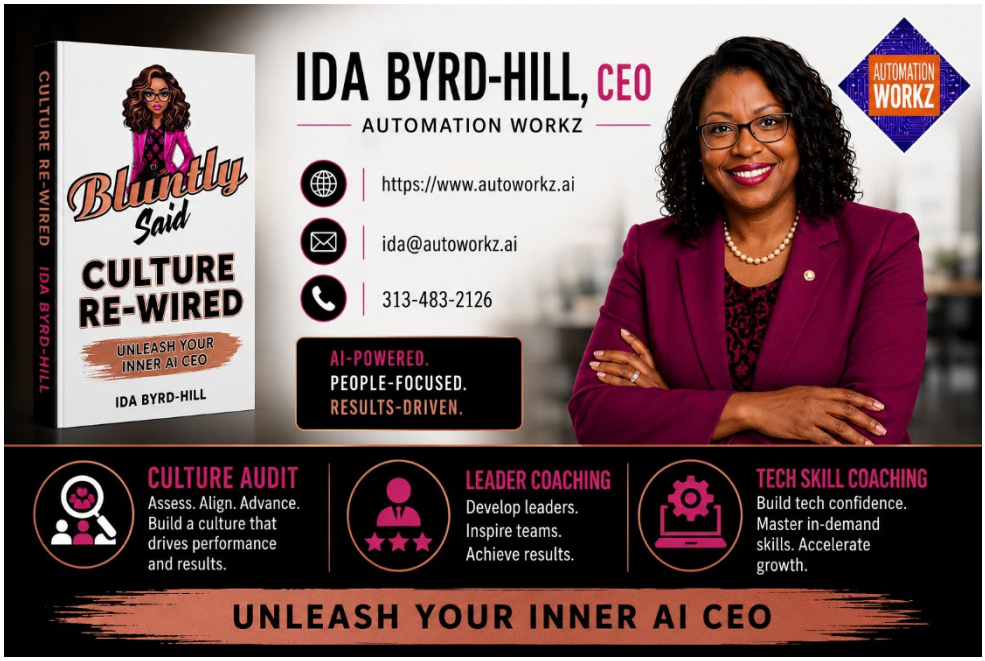
Appointed to Holon IQ/ BCG AI & Digital Skills Leadership Council. Landed on CEO magazine Top 25 Tech Innovators. Led Automation Workz to appear on the Intelligent.com top 10 Online Cybersecurity Bootcamp certification list and received Cisco Networking Academy Above and Beyond award. Member Detroit Regional Chamber CEO Talent Council. Author of Culture Re-Wired: Unleash Your Inner AI CEO. 2026 TEDx Speaker.

**Kevin Hill** **Data Science and Machine Learning Guru/Blockchain Expert**

CTO, Automation Workz Institute VP, Automation Workz Foundation

Studied for a BS Information Technology at Rochester Institute of Technology (RIT).

Full-stack Machine Learning/ LLM orchestration, Python/TypeScript, AWS, Managed 14TB/month data pipelines, AI chatbot development and IoT distributed systems. Developed our behavior intelligence engine, SenseiiWyze and all our tech systems.



# REFERENCES


1. Alim, T. N., Graves, E., Mellman, T. A., Anigbogu, N., Gray, E., Lawson, W., & Charney, D. S. (2006). Trauma exposure, posttraumatic stress disorder and depression in an African-American primary care population. Journal of the National Medical Association, 98(10), 1630-1636.
2. Goldmann, E., Aiello, A., Uddin, M., Delva, J., Koenen, K., Gant, L. M., & Galea, S. (2011). Pervasive exposure to violence and posttraumatic stress disorder in a predominantly African American urban community: The Detroit Neighborhood Health Study. Journal of Traumatic Stress, 24(6), 747-751. https://doi.org/10.1002/jts.20705
3. Brod, C. (1984). *Technostress: The human cost of the computer revolution*. Addison-Wesley.
4. Mullainathan, S., & Shafir, E. (2013). Scarcity: Why having too little means so much. Times Books/Henry Holt.
5. Jyoti, J., Ahmad, M., & Mahajan, M. (2025). From techno-stressors to techno-exhaustion: The mediating role of techno-anxiety in IT workplace. *International Journal of Applied Management and Technology, 25*(1)
6. Liţan, D.-E. (2025). Mental health in the “era” of artificial intelligence: Technostress and the perceived impact on anxiety and depressive disorders—An SEM analysis. *Frontiers in Psychology*.
7. Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2007). The impact of technostress on role stress and productivity. *Journal of Management Information Systems, 24*(1), 301–328
8. Amichai-Hamburger, Y., Mentzel Mazler, M., Barazani, A., et al. (2026). When technology meets personality: Toward human-centered AI design. AI & Society, 41, 3965-3980. https://doi.org/10.1007/s00146-025-02720-0
9. Tupes, E. C., & Christal, R. E. (1961). *Recurrent personality factors based on trait ratings* (ASD Technical Report No. 61-97). U.S. Air Force, Personnel Laboratory, Aeronautical Systems Division.
10. Costa, P. T., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual. Psychological Assessment Resources.
11. Jain, Y. (2025). AI-based personality prediction and career recommendation from social media posts. International Journal of Scientific Research in Engineering and Management, 09, 1-9. https://doi.org/10.55041/IJSREM46442
12. Shue, K., & colleagues. (2025). AI photo analysis illuminates how personality traits predict career trajectories. Yale School of Management. https://insights.som.yale.edu/insights/ai-photo-analysis-illuminates-how-personality-traits-predict-career-trajectories
13. Bonnechere, B., Bier, J.-C., Van Hove, O., Sheldon, S., Samadoulougou, S., Kirakoya-Samadoulougou, F., & Klass, M. (2020). Age-associated capacity to progress when playing cognitive mobile games: Ecological retrospective observational study. JMIR Serious Games, 8(2), e17121. https://doi.org/10.2196/17121
14. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining gamification. Proceedings of the 15th International Academic MindTrek Conference, 9-15. https://doi.org/10.1145/2181037.2181040
15. Kazimoglu, C., Kiernan, M., Bacon, L., & Mackinnon, L. (2012). A serious game for developing computational thinking and learning introductory computer programming. Procedia: Social and Behavioral Sciences, 47, 1991-1999. https://doi.org/10.1016/j.sbspro.2012.06.938
16. MentalGame Research Group. (2025). MentalGame: Predicting personality-job fitness for software developers using multi-genre games and machine learning approaches. arXiv. https://arxiv.org/abs/2601.01206
17. Smith, R. (2010). The long history of gaming in military training. Simulation & Gaming, 41(1), 6-19. https://doi.org/10.1177/1046878109334330
18. Stathakarou, N., Kononowicz, A. A., Swain, C., & Karlgren, K. (2023). Game elements in the design of simulations in military trauma management training: Protocol for a systematic review. JMIR Research Protocols. https://doi.org/10.2196/45969
19. Wang, A. I., & Lieberoth, A. (2022). University student motivation in mobile game-based learning: A bibliometric analysis and systematic literature review. Cogent Education. https://doi.org/10.1080/2331186X.2025.2590888
20. Zeng, J., et al. (2024). Exploring the impact of gamification on students' academic performance: A comprehensive meta-analysis of studies from 2008 to 2023. British Journal of Educational Technology. https://doi.org/10.1111/bjet.13471
21. Mathew, A. (2020). The effect of vision boards on performance goal achievement in adaptive populations [Unpublished undergraduate thesis]. Arizona State University. https://keep.lib.asu.edu/items/131414
22. Ramon, Y., Farrokhnia, R. A., Matz, S. C., & Martens, D. (2021). Explainable AI for psychological profiling from behavioral data: An application to Big Five personality predictions from financial transaction records. Information, 12(12), 518. https://doi.org/10.3390/info12120518
23. Rawolle, M., Schultheiss, M., Strasser, A., & Schultheiss, O. C. (2017). The motivating power of visionary images: Effects on motivation, affect, and behavior. Journal of Personality, 85(6), 769-781. https://doi.org/10.1111/jopy.12285
24. Segalin, C., Perina, A., Cristani, M., & Vinciarelli, A. (2016). The pictures we like are our image: Continuous mapping of favorite pictures into self-assessed and attributed personality traits. IEEE Transactions on Affective Computing, 8(2), 268-285. https://doi.org/10.1109/TAFFC.2016.2516994
25. Torchiano, G., Cazzato, V., & Marini, M. (2025). Artificial intelligence can emulate human normative judgments on emotional visual scenes. Royal Society Open Science, 12(3). https://doi.org/10.1098/rsos.250128
26. van Knippenberg, D., & Sitkin, S. B. (2024). When visions truly inspire: The moderating role of self-concordance in boosting positive affect, goal commitment, and goal progress. Journal of Research in Personality, 109, 104474. https://doi.org/10.1016/j.jrp.2024.104474
27. Yao, B., Yi, X., & Luo, J. (2015). Beyond classification: Latent user interests profiling from visual contents analysis. arXiv. https://arxiv.org/abs/1512.06785
28. AI can predict career success from a facial image, study finds. (2025). Computerworld. https://www.computerworld.com/article/3804964/ai-can-predict-career-success-from-a-facial-image-study-finds.html