

BRANDON MILLS

AI Architect & Automation Engineer · Applied ML · Cognitive Science

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SUMMARY

AI architect who designs and ships end-to-end AI systems — consumer apps, conversational coaching agents, research tooling, and automation pipelines — backed by applied machine learning across psychology, finance, and behavioral science. Shipped TrueCancer (live on the App Store) plus a portfolio of self-built AI products spanning education, finance, therapy, sales, and fitness. Five associate degrees, 4.0 GPA, with honors.

SOFTWARE & PRODUCTS

Consumer & Professional AI Applications

- **TrueCancer** — AI consumer product safety scanner — iOS live on the App Store, Android in beta. Photograph any product for an A+ to F health-safety grade. OCR + computer vision, toxicology-database integration, LLM-powered risk scoring. Freemium. apps.apple.com/us/app/truecancer/id6755970369
- **Professor Carl** — Universal Socratic AI tutor built on a long-term memory architecture that tracks student progress, misconceptions, and growth across sessions. Demonstrated at the UC San Diego “AI in Higher Education” keynote (Feb 2026). Beta.
- **Profound Questions** — AI-facilitated depth-conversation platform with multiple specialized AI host personas and context-aware question generation for families, couples, and teams.
- **MindFrame Pro** — Real-time AI emotional-state analysis for therapy — video-based, data-augmented insights for clinicians during and after sessions.
- **Defiant Finance** — Conversational AI financial coach for ADHD / neurodivergent users — receipt scanning, auto-categorization, weekly spending coaching, subscription management. Plaid integration across 20 countries.
- **Forge Fitness** — AI fitness coach with adaptive programming driven by individual performance and recovery data.
- **LEXICON SE** — Voice-interactive AI sales-training platform with real-time coaching and objection handling. Client: American Income Life. Beta moving to team rollout.
- **Lead Master AI** — Automated sales-lead scraper with AI relevance scoring and pipeline organization, built for the insurance industry.
- **Meta-Analysis Tool** — AI-assisted research-synthesis engine for systematic aggregation and pattern recognition across large academic corpora.

Research Systems

- **SAAM — Self-Actualization Assessment Model** — Pre-registered (DOI: 10.17605/OSF.IO/K7TDY); first self-actualization-specific NLP embedding model. Corpus of 68,683 papers; NASA-STD-7009B validation framework. Target journal: Behavior Research Methods.
- **Archetype of Fluidity** — ML framework modeling identity as dynamic archetypal states — archetypal analysis, HDBSCAN clustering, Hidden Markov Models, LSTM, SHAP explainability.
- **Options Trading Algorithm (QUANTUM_HTC)** — Autonomous iron-corridor options strategy; Python, LSTM price prediction, Alpaca API execution. Paper-trading phase.

AI TRAINING & RESEARCH EXPERIENCE

- **Human Feedback / AI Trainer — Outlier (Scale AI) & Alignerr** — Research-grade RLHF for LLM training and evaluation; output ranking, rubric scoring, structured rationale writing.

- **NASA NCAS — Scholar & Mission III** — Designed AI-enabled lunar-mapping systems and an accessible air-taxi concept cited as the strongest capstone in the program's 15-year history; continuing in a NASA think tank applying ML to lunar surface mapping.

PROFESSIONAL EXPERIENCE

- **Project Analyst — San Diego Community College District** May 2026 – Present
 - Build internal software tools and lead staff onboarding; scope has expanded into hands-on AI and software implementation across the district.
- **AI Implementation & Architecture Consulting** (Independent)
 - Advise on AI implementation, automation, and system architecture. Both web properties (brandonmills.com, selfactualize.life) built using AI orchestration and agent-based architecture.

EDUCATION

- **San Diego City College — Five Associate of Arts Degrees** May 2026 · GPA 4.0
 - Psychology for Transfer · Sociology · Communication Studies · Liberal Arts & Sciences: Human Behavior · Liberal Arts & Sciences: Humanities · 30+ honors credits

CERTIFICATIONS

- Supervised Machine Learning: Regression and Classification — DeepLearning.AI (Stanford Online), 2024
- Bitcoin and Cryptocurrencies (CS198.1x) — UC Berkeley / edX, 2020
- AP Psychology: What is Psychology? (PSYC.1x) — edX, 2020

TECHNICAL SKILLS

- **Languages & ML:** Python, R, Random Forest, XGBoost, LSTM, BERT, NLP & sentiment analysis, statistical modeling
- **AI development:** LLM integration (Anthropic, OpenAI), AI agent architecture & memory systems, prompt engineering, computer vision / OCR
- **Platforms & tools:** iOS & Android, API integration (Plaid, Alpaca, Anthropic, OpenAI), Git, CI/CD, AWS, Google Cloud, App Store deployment

HONORS & RECOGNITION

- NASA NCAS Scholar
- Jack Kent Cooke Foundation Scholarship Semifinalist (2024)
- Andrew W. Mellon Foundation / PATH Scholar (SDCCD–UC San Diego)
- Annette Bening Promise Scholarship (2024) · Chancellor's Scholarship, SDCCD
- 1st Place, SDCCD Communication Research Showcase (2024)
- Phi Theta Kappa Honor Society · Psi Beta National Honor Society
- Invited keynote, UC San Diego — AI in Higher Education (2026)

SELECTED AUTHORSHIP

- *Random Acts of Self-Actualization* (book series, co-authored with Jesse Doherty) — three volumes published; *The Relationship Now* in progress.