

Alwin Philip

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EDUCATION

Rutgers University

M.S. Computer Science | GPA: 3.68 | President, Graduate Student Organization
Capstone: Core Sentinel – Adaptive AI Data Guardrails for the AI-Enabled Enterprise

Camden, NJ

September 2024 – May 2026

Amity University

B.Tech Information Technology | GPA: 3.82

Noida, India

September 2020 – June 2024

TECHNICAL SKILLS

- **Languages:** Python (primary), C++, JavaScript, SQL, Shell Scripting
- **AI and Machine Learning:** NLP, LLMs, ONNX Runtime, OpenAI Whisper, Captum XAI, TensorFlow, PyTorch, Scikit-learn
- **Systems and Backend:** pywin32, PyQt6, REST APIs, ETL Pipelines, n8n Workflow Automation, Docker, Git, Amarel HPC
- **Cloud and Data:** AWS Solutions Architect Associate (In Progress), GCP, Firestore NoSQL, MongoDB, SQL, SEC EDGAR

EXPERIENCE

Graduate Research Assistant – Systems and Data Engineering

December 2025 – Present

Rutgers University–Camden, Camden, NJ

- Engineered a production-grade automated ingestion pipeline across a 27-year SEC EDGAR archive – Python and Shell scripts handling ingestion, schema transformation, and structured output for 10-K, 8-K, and 6-K filings.
- Wrote Amarel HPC batch automation scripts eliminating manual preprocessing across large-scale financial and behavioral datasets; fully scheduled, repeatable, and requiring no human intervention.

Marketing Analytics and AI Specialist

August 2024 – Present

Rutgers–Camden School of Business, Camden, NJ

- Shipped automated AI prompt engineering workflows across business operations; led GitHub Copilot and Microsoft Copilot rollout at Thayer Distribution – measured 20 percent delivery velocity improvement post-deployment.
- Deployed and maintained Google Looker Studio and GA4 analytics dashboards as production tools in active daily use by organizational leadership; engineered for reliability and always-on availability.

Data Science and AI Research Intern

June 2025 – August 2025

Code-blue.ai (UC Berkeley-Affiliated Startup), Berkeley, CA

- Designed and delivered real-time stroke detection systems end-to-end – feature extraction engine, high-volume facial and speech stream ingestion, and inference pipeline – achieving 98.9 percent model accuracy at production scale.

PROJECTS

Core Sentinel – Windows AI Security Agent (Capstone)

January 2026 – Present

- Architected a Windows background service using pywin32 for clipboard monitoring feeding a locally deployed ONNX-quantized TinyBERT model – under 100ms end-to-end latency, under 5 percent CPU, approximately 50MB RAM, zero data exfiltration.
- Developed a frameless PyQt6 overlay UI with real-time compliance nudges and a no-code YAML/JSON policy engine covering FERPA, HIPAA, and SEC domains – instantly configurable by non-technical admins.

Multimodal Dementia Classification System

December 2025

- Trained and shipped an end-to-end production ML system: audio ETL via OpenAI Whisper, multimodal fusion model achieving 90.2 percent classification accuracy, Captum XAI explainability layer, and ONNX export for framework-agnostic deployment.

CVLens – Full-Stack AI Recruitment Application

September 2025

- Architected and shipped a full-stack AI application from zero to production: Python NLP backend, Firestore NoSQL data layer, n8n workflow orchestration, and candidate ranking API – designed schema-first with clean separation of concerns.

RESEARCH AND PUBLICATIONS

Behavioral Biometrics and Phishing Detection

Ongoing

- Developed a hybrid fraud detection model combining typing patterns, mouse dynamics, and touchscreen gestures with phishing website features using XGBoost, Random Forest, and Neural Networks – achieved 45 percent improvement in detecting unsafe sessions vs. behavioral-only baselines.

Quantum Networking Security – IEEE ICRITO 2024 (Best Paper Award)

Digital Avatars and Metaverse Security – International Journal of Systems and Applications, November 2024

CERTIFICATIONS AND ACHIEVEMENTS

- AWS Certified Solutions Architect – Associate (Expected April 2026) | Google Analytics Advanced
- Google Cloud Professional: Generative AI, Security, and Infrastructure Modernization (2024)
- Cisco CCNA and CyberOps Associate | Core Leadership Certification – Rutgers School of Business (2025)
- 1st Place – TECHNOVATE 2024 | Most Promising Project – Tech-Genesis 2024 | Bronze Award – Cisco NetAcad Riders 2023 (Asia-Pacific)
- Best Paper Award – IEEE ICRITO 2024