

ELISABETH YAP

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EDUCATION

Rowan University, Glassboro, NJ

Expected May 2027

B.S. in Electrical and Computer Engineering, Minor in Computer Science

- GPA: 3.45/4.0; Dean's List

RELEVANT ENGINEERING EXPERIENCE

Atlantic City Electric (Exelon)

Jun 2024 – Aug 2024, May 2026 – Present

Electrical Engineering Co-op / Intern

- Inspected and validated 20+ smart grid devices in the field, confirming installation accuracy and connectivity
- Cross-checked GIS records against 50+ feeder maps, resolving 13 discrepancies to prevent misrouted crews during operations
- Developed 30+ recloser maps across 30+ feeder maps to support recloser settings coordination
- Partnered with a senior engineer to refine recloser settings, driving improvements in reliability metrics (CAIDI, SAIDI, SAIFI)
- Determined kVA/ft² load multipliers for various property types (schools, malls, etc.) to support electrical service planning
- Updated 25+ sections of an engineering manual, correcting outdated procedures to ensure an accurate reference for engineers
- Reviewed engineering designs against field conditions prior to crew dispatch, flagging conflicts to prevent rework

Rowan University College of Engineering, Glassboro, NJ

Jan 2024 – Jan 2025

Assistant AI Researcher

- Ported and optimized Python object-detection classification algorithms into C++ for low-latency, real-time decision-making on embedded targets, validating timing and performance in the lab
- Built and trained machine learning models achieving 90% classification accuracy for real-time acoustic pattern recognition on embedded hardware; engineered the board bring-up, data acquisition, and preprocessing pipeline for 150+ audio samples

BioDome Inc

Feb 2025 – May 2025

Research Intern

- Developed evaluation criteria and benchmarked 8 companies' PLC, IoT, and AI platforms across LoRa, Zigbee, and Wi-Fi connectivity, authoring 6 technical reports on tradeoffs to inform platform selection

ENGINEERING PROJECTS

LaundryIQ

Independent Hardware Project

- Wrote embedded C++ firmware on ESP32-S3 for board bring-up and real-time signal processing in a non-invasive current-sensing device ($\pm 0.01A$ resolution) with a custom analog front-end and PCB across 5 prototype revisions
- Built an end-to-end IoT platform achieving 90% cycle and fault-detection accuracy; validated market demand through 20+ customer discovery interviews via NSF I-Corps

AI Note Recorder

ESP32, Embedded Systems, AI

- Engineered a real-time voice-to-notes device in C++ on ESP32, integrating speech recognition and LLM summarization into structured meeting notes with 95% transcription accuracy and 100ms end-to-end latency

Tetris Arcade Machine and Traffic Light Controller

Digital Logic, Circuit Prototyping

- Hand-soldered and debugged a 4-IC traffic light circuit and a Tetris control circuit, validating 555 timer astable timing via oscilloscope while holding BOM costs to \$20 and \$43
- Designed and 3D-printed enclosures in SolidWorks

LEADERSHIP

IEEE Rowan Student Chapter, Rowan University

2024 – Present

Vice Chair, Service Chair, PR Chair

- Lead chapter operations, managing 8 committee members; organized the 2026 IEEE Student Activities Conference for 250+ attendees (\$50K budget) and co-organized ProfHacks 2024–2026, securing \$40K in sponsorship across 8 sponsors

RELEVANT SKILLS

Embedded & Hardware: Embedded C++ Firmware, RTOS Concepts, Board Bring-up, PCB Design & DFM, Schematic Capture, Analog Front-End & Signal Conditioning, Digital Logic, Current & Force Sensing, Arduino, ESP32, Oscilloscope, Signal Generators, Power Supplies

Languages & Software Practice: C++, Python, Verilog, Java, JavaScript, TypeScript, Git/GitHub, SDLC, Requirements Analysis, Test Procedure Development

AI/ML & Web Frameworks: PyTorch, OpenCV, React, Next.js, Firebase