Elisabeth Yap

yapeli32@students.rowan.edu | elisabethyap.dev

Education

Rowan University Glassboro, NJ

Bachelor of Science in Electrical and Computer Engineering, Minor in Computer Science *Sept 2023- May 2027*

Experiences

Electrical Engineering Intern Jun 2024 – Aug 2024

Atlantic City Electric *Glassboro, NJ*

- Assisted with load studies and feeder capacity reviews to support growth and reliability projects
- Supported switching plans and outage coordination to minimize customer impact during maintenance
- Helped evaluate equipment health (transformers, reclosers, poles) and prioritize corrective work
- Prepared documentation and redlines for as-built updates and internal review packages
- Reviewed designs against applicable codes/standards and company engineering guidelines
- Tracked project progress and risks, communicating status and next steps to the team

Hackathon Organizer (Profhacks) Nov 2024 – Present

Rowan University, IEEE *Glassboro, NJ*

- Co-led planning and day-of operations for a 24-hour collegiate hackathon, ensuring a smooth end-to-end attendee experience
- Built run-of-show, check-in/judging flows, and help desk; coordinated facilities, AV, catering, and swag vendors
- Recruited sponsors, mentors, and judges; managed deliverables, prize packs, and invoicing
- Drove marketing and PR campaigns across Instagram/LinkedIn/email; designed event graphics and copy
- Set up Slack/Discord, registration, team formation, and Devpost submission workflows with clear policies
- Captured feedback via surveys and post-mortem; documented SOPs and redlines for future events

Assistant Researcher – Artificial Intelligence (AI) Jan 2024 – Jan 2025

Rowan University, College of Engineering *Glassboro, NJ*

- Developed and trained a neural network for object detection, optimizing recognition accuracy of airborne targets
- Researched edge AI and embedded machine learning methods for real-time classification on resource-constrained hardware
- Implemented data preprocessing, labeling, and annotation pipelines for supervised training datasets
- Applied programming skills in Python and C++ to prototype, test, and refine detection algorithms
- Collaborated with faculty and peers to document findings and support publication-oriented research efforts

Teaching Assistant – Physics Jan 2024 – May 2024

Rowan University, College of Science & Mathematics *Glassboro, NJ*

- Supported professor during lectures by assisting with demonstrations and clarifying key concepts
- Helped manage classroom flow by addressing student questions in real time
- Reinforced understanding of physics topics including mechanics

Projects

Kain | *Flutter, Dart, Firebase (Auth/Firestore/Storage), iOS & Android.* Aug 2024 – Present

- Built a cross-platform **AI**-powered cooking assistant that turns photos of ingredients into step-by-step recipes with a clean, user-friendly interface
- Integrated **Gemini API** for produce recognition and **Firebase** to support personalization and reliability
- Designed and led product direction, **UI/UX**, and onboarding flow; conducted user testing to refine instructions and improve usability
- Implemented scalable architecture (**SwiftUI; Provider/Bloc**) with state management for fast, modular feature development
- Managed full deployment pipeline including **TestFlight/Play Console builds**, app signing, and store-ready publishing

LaundryIQ | Independent Clinic Project, Rowan University Sept 2025 - Present

- Led development of a smart laundry monitoring system combining **embedded hardware, computer vision**, and **IoT** connectivity.
- Designed a custom **PCB** in **Altium Designer** integrating a camera module, accelerometer, and microcontroller for real-time sensing.
- Developed an **AI-based** image detection model to identify washer and dryer occupancy using live camera feeds.
- Modeled **a SolidWorks** enclosure optimized for sensor placement, airflow, and IP20 safety standards.
- Built a web-based dashboard to display live machine status, energy usage, and availability data for multiple laundry rooms.

Digital Clock System | ECE Design Course, Rowan University Oct 2025 - Present

- Designed and implemented a digital clock circuit using **Altium Designer** for schematic capture, PCB layout, and routing.
- Modeled and printed a custom **SolidWorks** enclosure for the clock assembly with integrated mounting features.
- Used digital multimeters and benchtop power supplies to test voltage levels, timing accuracy, and component reliability.
- Documented design iterations, bill of materials (BOM), and final assembly for lab submission.

Tetris Arcade Machine | ECE Design Course, Rowan University Sept 2025 – Oct 2025

- Developed a Tetris-inspired arcade system combining hardware design, 3D modeling, and circuit assembly.
- Created a 3D-printed enclosure in SolidWorks that met IP20 electrical safety and ergonomic design standards.

• Soldered and wired logic components for input controls, LED displays, and timing circuits.
• Performed oscilloscope and DMM testing to verify circuit timing, input response, and overall game functionality.

Traffic Light Controller | ECE Design Course, Rowan University Oct 2025 – End of Oct 2025

• Designed and built a traffic light control circuit using logic gates and timing components.
• **Soldered** and tested **PCB**s to ensure proper LED sequencing and signal output timing.
• Applied **multimeter** testing and troubleshooting to validate system reliability and voltage tolerances.
• Presented final project demonstrating accurate signal logic and real-world traffic control simulation.

Technical Skills

Programming Languages: Python, C++, Java, HTML, CSS, JavaScript, TypeScript, Flutter
Libraries/Frameworks: React, Next, Tailwind, Prisma, NextAuth, PyTorch, Gemini, ADK, Tkinter, Pygame
Tools/Platforms: Windows, Linux, MacOS, Docker, Vercel, Node, GitHub, Arduino