

Katrina Rachel Panlilio Viray

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Education

University of Houston

Bachelor of Science in Computer Engineering, Minor in Mathematics - GPA: 3.8/4.0

Houston, TX

May 2025

Experience

Snap Inc.

Software Engineer Intern - Ad Data Infra Team

Santa Monica, CA

May 2025 - August 2025

- **Technologies:** Java, TypeScript, SQL, Google Cloud Platform
- Created a Java Dataflow to convert Bigtable ad logs into BigQuery tables for low-latency access by 50+ engineers
- Built a full-stack tool that constructs SQL queries for ad insights on demand, saving engineers 5+ hours per query
- Delivered structured ad insights via REST APIs and dynamic tables, cutting manual ad analysis workflows by 80%

Microsoft

Software Engineer Intern - Availability Platform Team

Redmond, WA

May 2024 - August 2024

- **Technologies:** C#, Moq, PowerShell, KQL, Azure, JSON
- Established the first real time connection for Azure's repair and root cause analysis services for 200K+ customers
- Reduced VM downtime by 10+ minutes by using real-time root cause data of VM failures to fast track repairs in C#
- Improved root cause clarity for VM failures by querying fault info with KQL, updating 30% of Kusto's records
- Built an optimized decision tree for root causes, accelerating VM failure diagnosis by 50% for stop and destroy tasks

NASA

Software Engineer Intern - Avionics Systems Team

Houston, TX

January 2023 - May 2023

- **Technologies:** Python, C, HalCoGen
- Created a Python GUI for a pick-and-place machine, boosting data entry efficiency by 70% by generating databases
- Developed a PID microcontroller with C and HALCoGen for stable and efficient temperature regulation in radiators

University of Houston

Teaching Assistant - Microprocessor Systems

Houston, TX

August 2024 - December 2024

- **Technologies:** Assembly
- Reinforced low-level concepts such as memory mapping, registers, and computer architecture for 40+ students
- Led weekly labs, conducted office hours, helped students with debugging in Assembly, and graded assignments

Projects

Maze Navigating Robot | Embedded C

- Built a maze-navigating robot, integrating embedded systems, and placed 4th out of 24 robots in a timed race
- Developed ADC and UART communication systems for real-time data processing of PID metrics with Bluetooth
- Integrated distance sensors and PWM motor control for precise line detection and navigation in dynamic mazes

Neural Kinetic Sculpture | Python, React Native, Tailwind CSS

- Created an interactive EEG-driven sculpture for an audience of 1,000+, blending technology and art in dance shows
- Processed real-time EEG data with Python to isolate alpha waves, enabling dynamic artistic imagery from dancers
- Created a React Native mobile app to map the signals to movement, sound, or light, and configure EEG parameters

Recipeas Web Application | MongoDB, Express.js, Node.js, React.js, Tailwind CSS

- Built a full-stack web app with CRUD functionality and user authentication to store recipes with the MERN stack
- Developed and designed 10+ responsive UI/UX pages and components with React.js, Tailwind, and Figma

Leadership

Career Fair Committee Chair

Society of Women Engineers

Houston, TX

December 2021 - May 2023

- Led a team of 15+ to plan professional development events, connecting over 140+ companies with 2000+ students

Technical Skills

Languages: Python, C++, C#, C, JavaScript, HTML, CSS, PowerShell, KQL, Assembly, MATLAB

Frameworks & Libraries: React.js, Express.js, Node.js, Tailwind CSS, JSON

Developer Tools: Git, GitHub, SVN, MongoDB, Azure, Postman, Vercel, Figma