

Katherine Chang

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Education

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Engineering, Minor in FinTech

Expected Graduation, May 2027

- **Dean's List:** Fall 2023, Spring 2024, Fall 2024, Spring 2025
- **Relevant Coursework:** Computer Architecture, Digital Design Lab, Embedded Systems Design, Data Structures and Algorithms, Mobile Ubiquitous Computing, Programming for Hardware/Software Systems

Experience

Georgia Tech Research Institute (GTRI)

May 2025 – Present

Computer Engineer Co-op at Information and Communications Lab

Atlanta, GA

- Troubleshooting and testing RF amplifier board, which will be integrated into an EW antenna, with STM32G051F8 microcontroller, signal generator, and oscilloscope
- Implement driver code with I2C communication between microcontroller, current sensor, and digital potentiometer to tune high power amplifier, resulting in 30 dB gain of signal from receiver amplifier

Configurable Computing and Embedded Systems VIP

Jan 2024 – Dec 2024

Undergraduate Student Researcher (Hardware Team)

Atlanta, GA

- Modified and tested an open-source AES encryption module with AXI interface to securely process voter data in a custom FPGA-based voting machine
- Rebuilt AXI wrapper class in Verilog to support 128-bit key encryption and created a custom testbench to validate functionality with sample inputs
- Present research on AES data encryption, security of current voting machines and system disparities.

Advanced Technology Development Center (ATDC)

Aug. 2024 – Present

Student Assistant

Atlanta, GA

- Perform administrative tasks for company events and office operations
- Organize investor and company directories on Salesforce and Excel
- Connect with new entrepreneurs interested in tech start-up spaces and development

Projects

FPGA Order Book | Verilog, SystemVerilog, Vivado, TCP

- Developing a trading orderbook on Xilinx Pynq Z2 FPGA board that takes in and stores order entries
- Programming BATS PITCH parser module to process real-time market data and generate commands for order-matching and modification

Pace Controlled Volume App | Swift, Python, CoreMotion API, Figma, Git

- Designed an iOS app that adjusts runner's music volume based on running pace data collected from earbud sensors
- Created UI framework and deliverables for application through Figma and Swift
- Researched on real-time, audio-based biofeedback and user experience with wearables from runners

Activities

GT Vietnamese Student Association

June 2023 – May 2025

Marketing Coordinator and Design Director

- Facilitated weekly meetings with committee members and logistics for general body meetings with executive board
- Coordinated layouts and timelines for annual large-scale events, garnering 500+ attendees and \$14k in funding
- Designed 50+ infographics for on-campus events on social media platforms with Procreate and Canva

Technical Skills

Programming Languages: C, C++, Java, Python, Verilog, SystemVerilog, VHDL

Developer Tools: Xilinx Vivado, ModelSim, Quartus/Altera, Arm Keil Studio, KiCad, Git

Hardware: STM32, Arduino, mbed LPC1768, Xilinx Pynq-Z2