

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 RF amplifier board with STM32G051F8 microcontroller, signal generator, and oscilloscope
- Implement driver code for 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
- Integrated 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

- Performed administrative tasks for company events and office operations
- Organized 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, Python, Vivado, TCP

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

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

- Optimize digital system that adjusts runner's music volume based on running pace through earbud sensors
- Create UI framework and deliverables for iOS application through Figma and Swift
- Research on real-time, audio-based biofeedback and user experience with wearables

Activities

GT Vietnamese Student Association

June 2023 – May 2025

Marketing Coordinator and Design Director

- Facilitate weekly meetings and logistics for general body meetings with executive board
- Coordinate layouts and timelines for annual large-scale events with over 500 attendees
- Manage media and marketing committees, as well as creating graphics for social media platforms

Technical Skills

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

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

Hardware: STM32, Arduino, Xilinx Pynq

Security Clearance: Confidential level (May 2025 - present)