Thomas Johnson

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EDUCATION

University of Virginia — Charlottesville, VA
B.S. Computer Engineering, Engineering Business Minor — *August 2021 – May 2025*
3.5 GPA, Graduated with Distinction

Delbarton School — Morristown, NJ
Headmaster's List, Highest Honors, First Team All-State Skiing — *August 2017 – May 2021*

EXPERIENCE

University of Virginia — Charlottesville, VA
Teaching Assistant, Computer Architecture — *Spring 2025*
Teaching Assistant, Intro to Embedded Systems — *Spring & Fall 2024*
- Assisted during in class workshops of at least 50 students and led office hours outside of class.
- Graded assignments and collaborated with professor to improve class' efficiency and effectiveness

Johnson & Johnson — Raritan / Piscataway, NJ
Enterprise Contract Management, Contract Solutions Intern — *Summers 2021-2024*
- Optimized ECM's digital database for auditors to locate files through intra document search
- Built automation solutions, including a web app that automatically processed the change request system for an ECM database that the team now uses as a template
- Developed a web portal with integrated automation and analytics through a user experience focused strategy. Researched and developed a framework for finance training for global employees

University of Virginia, High Performance Low Power Lab — Charlottesville, VA
Undergraduate Research Assistant — *September 2022 – April 2023*
- Tested RFID antennas and sensors to harvest energy for low maintenance sensors.
- Employed test-driven development for different components and circuit board layouts

PROJECTS

Flyby | *Python, CSS, HTML* — July 2025 – Present
- Built real-time aircraft detection plugin for Raspberry Pi e-ink display using OpenSky API
- Integrated flight data visualization with web configuration interface

ECE Capstone | *C, Assembly* — August 2024 – December 2024
- Designed swept-volume holographic display using multi-board hardware system with STM32 microcontroller, custom 16x16 LED matrix PCB, and integrated power supply
- Built preprocessing pipeline converting 3D cave files into optimized polar coordinate data for real-time display
- Implemented RTOS-based firmware for precise LED timing control, file navigation, and user interface management

LEADERSHIP

Virginia Alpine Ski & Snowboard Team — Charlottesville, VA
Men's Ski Captain — *April 2024 - March 2025*
- Executive board member managing operations for 350-member recreational club and 60-member competitive team
- Organized and led training programs, competitive races, fundraising events, and community outreach initiatives

Alpine Chair — *April 2023 - March 2024*
- Coached diverse skill levels from first-time skiers to experienced racers in alpine technique and racing strategy
- Collaborated with club leadership to organize ski trips, social events, and recruitment activities

TECHNICAL SKILLS

Languages: C/C++, Java, Python, Assembly, Bash, Verilog, VHDL, MATLAB, Rust, SQL
Developer Tools: Git, Docker, Linux, RTOS, Quartus, Multisim, Ultiboard, Cadence Virtuoso, Solidworks
Hardware: STM / TI boards, Arduino, PCB design, I2C, SPI