

Quinn Mair

720-450-6510 | quinn.mair@duke.edu | www.linkedin.com/in/quinn-mair | quinnmair.com

EDUCATION:

- Duke University Pratt School of Engineering** Durham, North Carolina
• BSE in Electrical and Computer Engineering, minor in Cultural Anthropology Expected May 2027
• Relevant coursework: nanoelectronics, digital design, computer architecture, signal processing
- George Washington High School** Denver, Colorado
• International Baccalaureate Diploma, Valedictorian Graduated May 2023

EXPERIENCE:

- HDR, Automation Systems & Controls Intern**, Denver, CO June 2026 - August 2026
• Drafted and reviewed process instrumentation drawings and electrical one-line diagrams for automated water treatment plant control systems
• Collaborated with engineers and clients to review technical drawings, incorporate design revisions, and resolve documentation issues
• Programmed and validated PLC ladder logic using Do-more Designer for industrial automation applications
• Supported multidisciplinary design reviews involving controls, electrical, and instrumentation systems
- Engineers In Action, On-Site Construction Manager**, Shiselweni, Eswatini May 2025 - August 2025
• Coordinated daily activities of 40+ workers to deliver a the longest footbridge in Eswatini (128m)
• Served as the primary liaison between students, engineers, local leadership, and government officials
• Communicated project progress and technical decisions in Siswati during construction and inauguration.
• Drafted and iterated drawings using field data and AutoCAD
• Constructed walls, set and adjusted sag, outlined excavations, maintained tool inventories
• First Duke student to be awarded Emerging Leader of the Year award at annual EIA conference
- Lunch Bunch LLC, Co-Founder**, Durham, NC May 2024 - September 2025
• Co-founder of a lunch tray startup: researched and developed an interlocking lunch tray for local schools
• Drafted and submitted nonprovisional patent, conducted prior art search, responded to office actions
• Awarded CFCI GoBig Grant, Duke I&E support grant x2, featured in Duke Startup Showcase
- Duke Engineers for International Development, President**, Durham, NC January 2026-Present
• Support planning, budgeting, implementation, and documentation of 4 infrastructure projects across 3 continents
• Fundraise and allocate \$70,000+ annual budget, personally raised ~\$100,000 in 3 years
- Duke University, Teaching Assistant for EGR 105**, Durham, NC August 2025 - December 2025
• Work with 200+ students in recursion, algorithm development, python syntax, and computational methods
• Evaluate student work and work with instructional staff to improve course policies
- Comcast, TPX Product Experience Intern**, Denver, CO May 2022 - July 2022
• Designed data management site for internal use, updated UI for software engineers, improved site aesthetics
• Helped troubleshoot github and terminal issues across company devices
- MCA of Central Park, Head Lifeguard**, Denver, CO Summer 2021-2024
• Instructed swim lessons, coached swim teams, responded to medical emergencies, enforced safety regulations
• Assisted with scheduling and training new lifeguards

SELECT PROJECTS

- 32 Bit Pipelined Processor + Video Game** Fall 2025
• Designed and verified a 32-bit pipelined processor in Verilog implementing hazard detection, forwarding, carry-lookahead arithmetic, and Modified Booth multiplication
• Debugged processor using GTKWave, Vivado, and Python before FPGA deployment
• Implemented the processor on FPGA hardware supporting a custom MIPS video game
- Audio Note Recognition Using Fast Fourier Transform** December 2024
• Developed a MATLAB application using Fast Fourier Transform techniques to identify musical notes from complex audio recordings.

SKILLS AND INTERESTS

Skills: Python, C, MATLAB, Verilog, PSpice, KiCad, PCB Design, Vivado, AutoCAD, Microsoft Office, Jira, Trello
Activities: Member: Duke Tour Guides, Theta Tau, DukeEngage, Hoops for Troops