Michael McElroy

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Education

The University of Texas at Austin   **Aug. 2025 – Present**
Bachelor of Science in Electrical and Computer Engineering   *Austin, TX*

Relevant Coursework

- Binary Datatypes & Arithmetic
- Bitwise Operations
- Assembly Programming
- Integral and Multivariable Calculus
- Circuit Design
- Circuit Analysis

Work Experience

City Of Live Oak   **June 2024 – August 2025 (Seasonal Role)**
Head Lifeguard   *Live Oak, TX*

- Supervised patrons and co-workers to ensure a safe environment at the pool.
- Performed regular chemical checks and maintenance duties to allow the continuous function of the facilities.
- Handled customer complaints and resolved conflicts when they arose.
- Pool Manager: Courtney Weese cweese@liveoaktx.net

Projects

Chess Client & Solver | *Java, JavaFX, CSV, Aseprite*   **July 2025**

- Developed a chess application using Java and the JavaFX framework to develop a user-friendly client.
- Implemented bitmasking and bitwise operations to handle the identification and position of pieces on the board.
- Created a simple solver algorithm to allow for single-player play.
- Used Aseprite to design the board and pieces with a comforatble aesthetic.

Radio-Controlled Airplane | *Circuit Design, Solidworks CAD*   **March 2024**

- Built a hot-wire foam cutter that used resistive heating to melt styrofoam to shape.
- Used Solidworks CAD to design and model an airfoil for the plane's wings.
- Wired the flight controller, battery, and control servos in order to allow for flight.

Technical Skills

Languages: Python, Java, C, C++, HTML/CSS, JavaScript
Developer Tools: VS Code, Eclipse, CLion, Solidworks, KiCad, LTSpice
Technologies/Frameworks: Linux, PyTorch, Git, GitHub, JavaFX, WordPress

Leadership / Extracurricular

High School Rocketry Club   **2023 – 2025**
Vice President & Treasurer   *Samuel Clemens High School, Schertz, TX*

- Led various teams through the construction and launch of several rockets.
- Started campaigns to raise and subsequently managed several thousand dollars of club funds.