William Lauer

Cleveland, Ohio| 440-991-6066 | wlauer3@gatech.edu | U.S Citizen

Education

Georgia Institute of Technology | Atlanta, GA | GPA: 3.46 Aug *2022 – Present*

Bachelor of Science in Electrical Engineering Expected Graduation, May 2026

- **Concentrations:** Circuit Technology & Electronic Devices
- **Relevant Coursework:** Digital Signal Processing, Circuit Analysis, Microelectronics, Electromagnetics, Digital Design Lab (Embedded Systems), Hardware & Software Systems, Computer Communications

Skills

Programming: VHDL, C, Assembly, JavaScript, Python, Visual Basic, CSS, Git, ReactJS, HTML
Hard Skills: Analog Circuitry**,** Oscilloscopes, Multimeters, Soldering, Welding, Operating forklifts
Software: KiCad, AutoCAD, Quartus, NI LabView, Wireshark, Saturn PCB Toolkit, Proficy iFix, Excel, IGS
Languages: Russian (6 years, Conversational), English (native)
Additional: Familiar with application layer protocols (TCP/IP, UDP)

Experience

Rovisys–CSI Division | Aurora, Ohio *May 2023 – Aug 2023*

Systems Co-op

- Developed HMI graphics and user-forms for chemical manufacturers.
- Linked HMI graphics with IGS PLC software.
- Produced and revised drawings for a chemical Co. in AutoCAD from redline PDFs (32 total Drawings).
- Initialized and installed 120+ PLC modules and set up 2 panel views for a project shutdown.
- Measured the scope of a project kick-off by creating a spreadsheet to track total IO modules required.

Troy Chemical | Troy, Ohio *May 2022 – Aug 2022*

Chemical Compounder

- Helped in raising shipping success rate to >90% for end of Q1 and into Q2.
- Modified controls to regulate temperature, pressure, feed and flow of liquids and gases.
- Proficient in operating 4 different forklifts and other heavy machinery (gas & electric).
- Operated industrial mixing equipment.
- Worked 42 hours a week to pay for college expenses.

Projects

Pic Purge | In Collaboration w/Logan Fouts *Jul-Sep 2023*

PicPurge is a desktop application that uses a machine-learning python API to remove duplicate photos from your folder of choice automatically. The work I did pertains to the backend algorithm optimization, front-end UI design, and implementation.

- Utilized ReactJS to create a webapp, which we then packaged with Electron to make a desktop app.
- Planned approach to UI with Figma design software.
- Implemented TensorFlow image recognition model to categorize photos.

Precharge Board | Georgia Tech Solar Racing, SR4 *Feb-Dec 2023*

Enhanced a previous precharge design for implementation in the new SR4 multi-occupant vehicle. Utilized KiCad PCB software to design a schematic and PCB for the board before printing it and integrating it into the SR4.

- Simulated circuit layouts in Falstad circuit simulator and Saturn PCB Toolkit.
- Developed simultaneous charging method to reduce transients on closing contacts.

Elevator | Principles of Engineering *May 2021*

Built a scaled-down elevator from scratch in a group of 3. Skills required include mechanical knowledge of pulley systems, coding logic for call buttons and LEDs, circuit and breadboard use, and group communication.

- Wired call buttons in series with their respective IO port to remove interference between buttons/floors.
- Constructed pulley system for raising and lowering the floor.

Activities

Georgia Tech Solar Racing | Batteries and BMS sub-team member *Aug 2022 – Current*
Georgia Tech Hacky Sack | Founder and President *May 2023 – Current*
Georgia Tech Europe | Study Abroad in Metz France *Jan – May 2024*