

William Lauer

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Education

Georgia Institute of Technology | Atlanta, GA | GPA: 3.19

August 2022 – Present

Bachelor of Science in Electrical Engineering

Expected Graduation, May 2026

- **Concentrations:** Sensing and Exploration & Electrical Energy Systems
- **Relevant Coursework:** Digital System Design, Signal Processing, Hardware & Software Systems

Skills

Programming: C, Assembly, Python, JavaScript, CSS, Visual Basic, ReactJS, HTML

Hard Skills: Analog Circuitry, Soldering, Welding, Operating forklifts

Software: KiCad, AutoCAD, Fusion360, Saturn PCB Toolkit, Proficy iFix, Excel, IGS, SolidWorks

Languages: Russian (6 years, Conversational), English (native)

Communication: IO Tracking, Code revision, Design reports

Experience

RoVisys–CSI Division | Aurora, Ohio

May 2023 – August 2023

Systems Co-op

- Developed HMI graphics and user-forms for chemical manufacturer PPG.
- Linked HMI graphics with IGS PLC software.
- Produced and revised drawings for Lima Chemical in AutoCAD from redline PDFs (32 total Drawings).
- Initialized and installed 120+ PLC modules and set up 2 panel views for a Bunge Limited 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 – August 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-Sept 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-Apr 2023

In a group of 4, we created a precharge PCB that controls the precharge cycle of the SR4 vehicle. We used 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.
- Calculated power dissipation across different resistor combinations to be within allowable limits.

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

August 2022 – Current

Georgia Tech Hacky Sack | Founder and President

May 2023 – Current