

SOFTWARE SKILLS

- Embedded C/C++
- JavaScript & Node.JS
Express.JS, REST APIs
- Databases
SQL, Firebase, InfluxDB
- Google Cloud Platform
VMs, Pub/Sub, Cloud Storage
- Python
- Data Visualization
Grafana, Vue.JS
- CI/CD
GitHub & GitLab Actions

HARDWARE SKILLS

- 3D Modeling
Solidworks, Onshape
- PCB Design (KiCad)

CONTACT

GitHub @trylaarsdam
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Portfolio toddr.org
Dev Blog dev.toddr.org
LinkedIn /in/trylaarsdam

EDUCATION

GEORGE FOX UNIVERSITY
Sophmore, Bachelors of Science
Computer Science
3.95 GPA
2022-2026

AWARDS

Ethel Ankeny Award for Technical Theater
George Fox University – April 2023

State Champion, Computer Science
Academic Challenges in Engineering & Science from Eastern Illinois University – May 2021

Todd Rylaarsdam

SOFTWARE DEVELOPER & EMBEDDED ENGINEER

EXPERIENCE

UNDERGRADUATE INTERN, NEUROLOGY MAYO CLINIC
May 2022 – August 2022

Designed and created a system to allow EEG implants to interface with an at-edge Tiny-ML capable microcontroller, enabling 24/7 real-time seizure detection and forecasting for patients with epilepsy, whether they were in the hospital, at home, or off grid and disconnected from the internet.

Skills: C++, JavaScript, TensorFlow Lite, Python, C#, 3D Modeling, Google Cloud, Grafana, InfluxDB

PART-TIME CONTRACTOR WINDY CITY LAB
July 2022 – May 2023

Provided continuing support, developed new features, and shipped bug fixes for clients while enrolled in college full-time. Participated in project design and architecture planning for upcoming projects and contracts.

Skills: C++, Google Cloud, Grafana, InfluxDB, Node.JS

FULL STACK INTERN WINDY CITY LAB
May 2021 – July 2022, Part time March 2020 – January 2021

Worked on projects for clients ranging from early stage IoT prototypes to production-ready sensors for scientific research. Responsibilities included communicating with clients like Argonne National Lab, Mayo Clinic and Northwestern University to refine project goals and provide status updates, significant individual and pair-programming contributions to codebases, and design prototyping, and requisition of PCBs and device housings.

Developed a cloud-synchronized, distributed CPU emulator. This innovation enabled summer students during the 2020 lockdowns to collaborate remotely, each building their 8-bit CPU components. These individual components, when connected, formed a complete, functional CPU through cloud coordination.

Skills: C/C++, Node.JS, Python, PCB Design, 3D Modeling, GCP