Luke Erling Fredrickson

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EDUCATION

University of Vermont *Sept 2018 — May 2022*

- Bachelor of Science, Computer Science // Statistics Minor
- Magna Cum Laude // Dean's List: All Semesters // GPA: 3.96

WORK EXPERIENCE

Service Writer & Bicycle Mechanic, *Old Spokes Home* *Sept 2022 — Present*

- Diagnose and provide bike repair estimates for customers on the spot.
- Assist customers with a wide array of needs, communication abilities, and financial backgrounds.
- Manage storefront organization and inventory stock.

Undergraduate Research Assistant, *Univesity of Vermont* *June 2020 — Dec 2021*

- Programed video games for academic research of social-ecological systems using Unity and C#.
- Analyzed and synthesized data into accessible forms such as web dashboards using Plotly Dash.
- Communicated and worked effectively as a member of a 10-person development team.

Software Developer Intern, *Packetized Energy* *Sept 2020 — Dec 2020*

- Contributed production front-end and back-end code to a single-page React application.
- Integrated AWS data into front-end React components using Redux, AWS Lambda, and Serverless.
- Utilized Jest to write unit tests and integration tests for production code.

LEADERSHIP & COMMUNITY INVOLVEMENT

UVM Bikes! (Student Bicycle Co-op)

President *May 2020 — May 2022*

- Spearheaded club operations, communications, marketing, and execution of long-term club goals.
- Awarded Outstanding Student Organization and Sustained Commitement to Service awards in May 2022.
- Managed a team of over 30 student volunteers and a leadership team of 7 club officers.
- Volunteered 20+ hours per week fixing bicycles for UVM students, faculty, and staff.

Treasurer *May 2019 — May 2020*

- Established close working relationships with local vendors and negotiated club budget increase of 68.5%.

PROJECTS

UVM Bikes! Website *uvmbikes.w3.uvm.edu*

- Static website for the UVM student bicycle co-op, built with React, Gatsby, and headless WordPress.
- UI Designed in Figma and implemented with Tailwind CSS.

Food Insecurity Dashboard *github.com/lukefredrickson/nfact-dashboard*

- Web dashboard showcasing food insecurity research data by the NFACT research team.
- Written in Python using the Plotly Dash framework.

Raspberry Pi Spotify LED Visualizer *github.com/lukefredrickson/spotify-led-visualizer*

- Web app which uses Spotify API data to visualize music on an LED strip via a Raspberry Pi server host.
- Utilizes Node.js, Express, and Socket.io to manage user authentication, data flow, and API queries.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, HTML & CSS, C#, C++, C, R, Java

Libraries & Frameworks: React, GraphQL, Gatsby, Tailwind CSS, Jest, Serverless

Relevant Courses: Data Structures & Algorithms, Algorithm Design & Analysis, Software Engineering