

# LIAM BECKMAN

[liam@liambeckman.com](mailto:liam@liambeckman.com) | [liambeckman.com/code](https://liambeckman.com/code)

A self-driven developer with a passion for crafting software and solutions that work for people.

## EDUCATION

---

**Bachelor of Science; Computer Science** — Oregon State University  
Corvallis, OR / Welches, OR

Class of 2019

.....

**Bachelor of Science; Biology** — University of Oregon  
Eugene, OR / Uppsala, Sweden

Class of 2017

## TECHNICAL WORK EXPERIENCE

---

**Full Stack Software Developer** — Saltire Software Inc.  
Portland, OR

2022 — Present

Contributed to the fullstack development of [e-commerce](#) and [math & music educational](#) sites.

- ▷ Integrated RESTful APIs for use in authenticating clients during online checkouts.
- ▷ Set up and managed hosting and SSL certification for [On the Sensations of Tone](#).

.....

**Research Software Developer** — OHSU, Department of Medical Informatics and Clinical Epidemiology  
Portland, OR

2019 — 2020

Furthered development of the [Swing desktop application](#) used to curate data for [Reactome](#) — an open-source database and visualizer of biological pathways used for research.

- ▷ Implemented a custom class to flag pathway and reaction revisions between varying data sets.
- ▷ Added new UI/UX features based upon communication with users and research database curators.
- ▷ Updated API calls and data processing of a remote NLP document parser ([REACH](#)).
- ▷ Received coauthor credit in *Nucleic Acids Research* — [The reactome pathway knowledgebase 2022](#).

## SELECTED PROJECTS

---

**convida** — Conway's Game of Life powered by WebAssembly.  
Rust, WebAssembly, JavaScript

2019 — Present

- ▷ A Conway's Game of Life simulation with a high performance WebAssembly compilation target.
- ▷ A demonstration is available at [convida.liambeckman.com](https://convida.liambeckman.com).

.....

**demonic** — Interactive demos of programs and programming languages.  
Node.js, JavaScript

2018 — Present

- ▷ A suite of applications that allows users to try out programs and programming languages by accessing a [web terminal](#) or running [code snippets](#).
- ▷ Processes are communicated via WebSockets and run in a lightweight Linux sandbox (Debian chroot secured with [Firejail](#)).

[withfeathers](#) — Poetry web app and shell program. “‘Hope’ is the thing with feathers - ...”  
Python, Flask

2018 — Present

- ▷ A web app and CLI that fetches, parses, and selects a random poem by Emily Dickinson from [Project Gutenberg](#).
- ▷ A [Flask](#)-powered web interface at [withfeathers.liambeckman.com](#) displays a new poem every day.

## GENERAL WORK EXPERIENCE

---

**Ski and Snowboard Technician and Shop Hand** — Next Adventure  
Portland, OR

2021 — 2022

- ▷ Assisted 50+ customers a day in fitting, renting, and tuning mountaineering and snowsports equipment.

.....  
**Lab Prep Assistant** — University of Oregon Honors Biology Lab  
Eugene, OR

2014 — 2015

- ▷ Prepped and sterilized materials for undergraduate biology lab courses.
- ▷ Set up personal computers for use with lab-focused programs.

.....  
**Student Researcher** — **Botanical Genetics** — University of Minnesota  
Minneapolis, MN

Summer 2014

- ▷ Conducted research involving botanical DNA isolation, purification, sequencing, and analysis.
- ▷ Presented results and conclusions at three scientific conferences.

.....  
**Student Researcher** — **Ecology and Restoration** — H.J. Andrews Experimental Forest  
Blue River, OR

Summer 2013

- ▷ Analyzed forest networks and plant response to fire disturbances.
- ▷ Surveyed plant communities in experimental sub-alpine meadows as part of ongoing research.
- ▷ Coauthored results in *Restoration Ecology* — [Vegetation Recovery in Slash-Pile Scars Following Conifer Removal in a Grassland-Restoration Experiment](#).

## COURSES COMPLETED AT OREGON STATE UNIVERSITY

---

- |   |  |
|---|--|
| ▷ <b>CS 165</b> — Accelerated Intro to Computer Science   | ▷ <b>CS 344</b> — Operating Systems I                  |
| ▷ <b>CS 225</b> — Discrete Structures in Computer Science | ▷ <b>CS 361</b> — Software Engineering I               |
| ▷ <b>CS 261</b> — Data Structures                         | ▷ <b>CS 362</b> — Software Engineering II              |
| ▷ <b>CS 271</b> — Computer Architecture and Assembly      | ▷ <b>CS 372</b> — Introduction to Computer Networks    |
| ▷ <b>CS 290</b> — Web Development                         | ▷ <b>CS 373</b> — Defense Against the Dark Arts        |
| ▷ <b>CS 325</b> — Analysis of Algorithms                  | ▷ <b>CS 467</b> — Online Capstone Project              |
| ▷ <b>CS 340</b> — Introduction to Databases               | ▷ <b>CS 475</b> — Introduction to Parallel Programming |
- .....