

LIAM BECKMAN

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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

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

Class of 2017

TECHNICAL WORK EXPERIENCE

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

2019 — Present

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. Specific responsibilities included:

- ▷ Updating API calls and data processing of a remote NLP document parser ([REACH](#)).
- ▷ Extending the look and feel of pathway entities to reflect chemical status.
- ▷ Implementing a custom class to flag pathway and reaction revisions between varying data sets.

SELECTED PROJECTS

mdbook-latex* — A documentation backend for [mdbook](#) to generate L^AT_EX and PDF documents.

Rust, L^AT_EX

2019 — Present

A documentation program that takes Markdown input and produces L^AT_EX output. An optional feature includes PDF compilation (e.g. the official introductory book to Rust — [The Rust Programming Language](#)).

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Voyager Index — Quality of life application to help world travelers find their next home.

JavaScript, PostgreSQL, Go, Python, HTML, CSS

2019 — Present

Spearheaded the development of the server and CLI for the Voyager Index project — a world map of over 7,000 cities ranked by user-selected filters. Personal contributions included standardizing server interactions with the database, hosting the PostgreSQL database on a personal Raspberry Pi, and presenting the [final product](#).

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demonic* — Interactive demos of programs and programming languages.

Node.js, JavaScript, Go

2018 — Present

A suite of applications that allows users to try out programs and programming languages by accessing a [simple web interface](#), [reading documentation](#), or even experimenting from the [command line](#). Processes are communicated via WebSockets and run in a lightweight Linux sandbox (Debian chroot secured with [Firejail](#)).

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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 hostable web interface at withfeathers.liambeckman.com displays a new poem every day.

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* Personal project.

GENERAL WORK EXPERIENCE

Ski and Snowboard Technician and Shop Hand — Mountain Sports

Welches, OR

Winter 2018, Winter 2019

- ▷ Assisted customers in finding, tuning, and renting or buying select winter gear.
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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.
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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.
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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.

COURSES COMPLETED AT OREGON STATE UNIVERSITY

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