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

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 — 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. Specific responsibilities included:

- Updating API calls and data processing of a remote NLP document parser (REACH).
- Implementing a custom class to flag pathway and reaction revisions between varying data sets.
- Adding new features based on communication with users and database curators.

SELECTED PROJECTS

mdbook-latex — A documentation backend for LaTeX and PDF generation.
Rust, LaTeX — 2019 — Present

- A backend for the mdBook documentation program that converts Markdown sources to LaTeX and PDF.

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 — Mountain Sports
Welches, OR — Winter 2018, Winter 2019

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

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.

COURSES COMPLETED AT OREGON STATE UNIVERSITY

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