

# LIAM BECKMAN

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

## EDUCATION

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**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

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**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](#)).
- ▷ 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

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**mdbook-latex** — A documentation backend for  $\text{\LaTeX}$  and PDF generation.  
Rust,  $\text{\LaTeX}$

2019 — Present

- ▷ A backend for the [mdBook](#) documentation program that converts Markdown sources to  $\text{\LaTeX}$  and PDF.

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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](https://withfeathers.liambeckman.com) displays a new poem every day.

## GENERAL WORK EXPERIENCE

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### **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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| ▷ <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 |