LIAM BECKMAN

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A self-driven developer who loves helping organizations increase their impact by crafting software and solutions that work for people.

EDUCATION

Bachelor of Science; Computer Science — Oregon State University Postbaccalaureate, 3.64 GPA
Graduated June 2019 — Corvallis, OR

Bachelor of Science; Biology — University of Oregon Presidential Scholar, 3.34 GPA
Graduated June 2017 — Eugene, OR

EXPERIENCE

- **Object Oriented Design** — 1+ years developing software with OOD principles in Java and JavaScript.
- **Scripting Languages** — 1+ years scripting projects and workflows with Python and Bash.
- **Unix** — 2 years developing software on GNU+Linux systems (currently running self-compiled 5.1.6 kernel).
- **Software Workflows** — 2 years working with and releasing projects via Git. Git and Jenkins servers hosted on a personal Raspberry Pi provide continuous integration and delivery for my own software projects.

PROJECTS

Voyager Index* — quality of life application to help world travelers find their next home.
JavaScript, PostgreSQL, Go, Python, HTML, CSS — github.com/voyager-index

A world map of over 7,000 cities ranked by over 23 user-selected filters, including national and international climate, economic, and safety data. A command line interface with signed releases for Windows, macOS, Linux, and BSD's allows anyone to leverage the Voyager Index database to build their own applications and services.

RemoveMyWaste — map application for hazardous waste removal.
Java, MariaDB/MySQL, SQLite, JavaScript, HTML, CSS — github.com/cs361-group24/RemoveMyWaste

An Android and web application with the purpose of giving anyone the ability to safely dispose of hazardous household and industrial materials. Users can locate disposal centers near them, as well as read specific information on the materials they wish to dispose of. The web interface may be found at removemywaste.liambeckman.com.

devilish* — portable shell for *nix operating systems.
C — github.com/lbeckman314/devilish

A minimalistic shell for Unix-like operating systems. Allows for standard input/output redirection, foreground/background processes, and SIGTSTP/SIGINT signal handling.

withfeathers* — poetry web app and shell program.
Python, Flask — github.com/lbeckman314/withfeathers

Fetches, parses, and selects a random poem by Emily Dickinson from Project Gutenberg. A hostable web interface at withfeathers.liambeckman.com makes these poem selections available to anyone with an internet access.

matriz* — mathematics shell program.
Bash — github.com/lbeckman314/matriz

A shell script for managing matrix operations including multiplication, addition, and transposition. A matrix generator is included in the available functions.

prime* — program for calculating large prime numbers.
C++ — github.com/lbeckman314/prime

A program that uses the Sieve of Eratosthenes to compute a given prime number selected by the user.

* Interactive demos available at liambeckman.com/code#terminal

LaTeX source: git.io/fhsem

COURSES

- **CS 165** — Accelerated Introduction To Computer Science
- **CS 225** — Discrete Structures In Computer Science
- **CS 261** — Data Structures
- **CS 271** — Computer Architecture And Assembly Languague
- **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

EXTRAS

University of Oregon Honors Biology Lab — Eugene, OR
Lab Prep Assistant — September, 2014 — June, 2015

Prepared materials and procedures for The Honors Biology Lab curriculum at the University of Oregon. Relevant responsibilities included making and curing petri plate solutions, evaluating states and types of bacterial growth, and studying the processes and mechanisms of cytological phenotypic expression and function.

NSF Funded REU at the University of Minnesota — Minneapolis, MN
Student Researcher—Botanical Genetics — May — August, 2014

Conducted research involving botanical DNA isolation, purification, sequencing, and analysis; examined the effect of personally designed genetic markers had on a tropical tree's evolution/phylogeny; presented results and conclusions at the following scientific conferences:

- The 2015 AAAS Emerging Researchers National Conference in STEM hosted in Washington D.C.
- The 2015 University of Oregon Undergraduate Research Symposium
- The 2014 University of Minnesota Undergraduate Symposium

Ecological Apprenticeship at H.J. Andrews Experimental Forest — Blue River, OR
Student Researcher—Ecology and Restoration — June — August, 2013

Analyzed forest networks and plant response to fire disturbances; surveyed plant communities in experimental sub-alpine meadows as part of ongoing research; published study in *Restoration Ecology: The Journal of the Society for Ecological Restoration* ("Vegetation Recovery in Slash-Pile Scars Following Conifer Removal in a Grassland-Restoration Experiment", November 2014).