

Jake Vossen

COLORADO SCHOOL OF MINES CLASS OF 2022, B.S. COMPUTER SCIENCE

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"Programs must be written for people to read, and only incidentally for machines to execute" – SICP

Education

Colorado School of Mines

Golden, Colorado

M.S. COMPUTER SCIENCE

January 2021 - December 2022

• Enrolled Courses: Advanced Computer Architecture

B.S. COMPUTER SCIENCE, MINOR IN ECONOMICS

August 2018 - December 2021

- Major GPA: 3.95 || Overall GPA: 3.46
- 2020 (Transamerica) & 2019 (BP) C-MAPP Scholar - An award to recognize top CS students who are active and involved within the CS department
- Relevant courses in Computer Science
 - Completed Courses: Data Structures (C++), Advanced Software Engineering, Software Engineering (Java), Database Management, Compiler Design (Rust), Introduction to Linux, Introduction to Computer Science (Python)
 - Enrolled Courses: Operating Systems, Elements of Computing Systems
- Relevant courses in Economics
 - Completed: Energy Economics, Intermediate Microeconomics, Property Rights and Natural Resources
 - Enrolled: Economics of Water
- Study abroad: Kenya 2019 - Prepared and taught lessons on Arduinos and 3D modeling to middle school and high school aged youth and conducted entrepreneurial self-efficacy and market research

Skills

- **Programming Languages**
 - **Advanced:** Python, Java, Rust
 - **Intermediate:** C++, SQL, TypeScript
 - **Beginner:** Haskell, Swift, OCaml
- **Development Tools**
 - Deployment Tools: AWS, Docker, Linux Server Maintenance & Management
 - Other Tools: Git, GitHub, Bash, LaTeX, GNU Make
- **Team Skills & Leadership:** Agile Scrum team member, U-CLIMB Lead Mentor for Intro to Computer Science (see Experience), Eagle Scout
- **Certifications:** Associate Amazon Web Services Solution's Architect (2018-2021)

Experience

Nextworld LLC

Denver Tech Center

ASSOCIATE SOFTWARE ENGINEER

Summer 2018, 2019, 2020

Three summers of full time software development with backend Java and frontend Angular. My code was deployed bi-weekly, reviewed by stakeholders, and delivered to customers. I was involved in large GitHub projects that utilized advanced GitHub functionality such as code reviews and CI/CD. Nextworld used Agile Scrum methodologies, and I took part in sprint planning, retrospectives, and backlog grooming.

- Full stack developer (Summer 2020)
 - Developed Java REST API code to generate reports using Nextworld data, which included accessing PostgreSQL databases
 - Wrote TypeScript/Angular to add new features to the Nextworld report builder
- Frontend web developer (Summer 2019)
 - Used TypeScript/Angular to implement features and improvements to the Nextworld enterprise software platform
 - Used the Nativescript toolkit to improve the iOS and Android mobile apps
- Integrations specialist (Summer 2018)
 - Used Rest APIs and cloud services to implement endpoints to next generation enterprise software (C#)

Colorado School of Mines

Golden, Colorado

LINUX SYSTEM ADMINISTRATOR (SUMMER 2020 - CURRENT)

- Performed maintenance, upkeep, and upgrades on 6 Ubuntu servers
- Maintained and updated 10 CS@Mines project websites
- Provided and managed package mirrors for Arch Linux and Ubuntu

UNDERGRADUATE RESEARCH ASSISTANT (FALL 2020 - CURRENT)

- Studying regular expression synthesis and optimization

TEACHING ASSISTANT - INTRO TO LINUX (FALL 2020)

- Held office hours twice a week, assisted students in Linux and shell scripting basics, graded and provided feedback on assignments for 220 students

LEAD U-CLIMB MENTOR / TA FOR INTRO TO COMPUTER SCIENCE (SPRING 2020 - SUMMER 2020)

- Managed U-CLIMB mentors, scheduling, task distribution, and creating / presenting training material for TAs to teach introductory computer science material to 400 students
- Performed interviews and made hiring decisions for future mentors

U-CLIMB MENTOR / TA FOR INTRO TO COMPUTER SCIENCE (FALL 2019)

- Assisted with instructing lessons about algorithms, data structures, and other introductory computer science material
- Provided one-on-one mentorship and support for Intro to Computer Science students

Datava

Remote

CS@MINES FIELD SESSION (UNPAID)

Summer 2020

- Migrated backend stack (PHP, Apache, MySQL) to a containerized system using Docker
- Got trained on scrum, product design, and other software engineering concepts
- Acted as product owner, which included developing definition of done and creating a requirements document

Valor Christian High School

Highlands Ranch, Colorado

IT INTERN

September 2015 - May 2018

- Managed 550 Apple devices, from hardware maintenance to software deployment and assisted in network configuration in a Jamf JSS environment, as well as assisting in budget approval and project management
- Migrated on premise servers to cloud based solutions

Awards

2020	Fourth Best Overall Hack , Hack CU VI Hackathon	University of Colorado
2018	Best Use of Twilio API , MHacks 11 Hackathon	University of Michigan
2019	Most Random Hack , Hack CU V Hackathon	University of Colorado
2019	Second Overall , Google Passport Design Challenge	Google Boulder
2018	Presenter , C-MAPP Event - CSCI 101 Poster Presentation	Colorado School of Mines
2018	Eagle Scout , Boy Scouts of America	Troop 628

Programming Challenge Awards / Certifications

2020	Python (Basic) , HackerRank Certification	Online
2020	Problem Solving - Three Stars , HackerRank Skill	Online

Extracurricular Activities

Association of Computing - Women (ACM-W)

Golden, Colorado

SECRETARY

Fall 2020 - Spring 2016

- Helped plan club meetings with goal of increasing diversity in the field of Computer Science
- Presented several talks, including talks on \LaTeX and data privacy/security
- Managed attendance tracking to distribute extra credit for a variety of courses

Colorado School of Mines OreSec Cybersecurity Club

Golden, Colorado

VICE PRESIDENT & COFOUNDER

Spring 2019 - Fall 2020

- Organized club meetings and gave presentations about cybersecurity topics
- Raised awareness of personal privacy and security around campus
- Gave presentation on the reverse engineering tool Ghidra

Association of Computing (ACM)

Golden, Colorado

MEMBER

Fall 2018 - Current

- Participated in Hackathons and other club events and programming competitions
- Volunteered for the High School Programming Competition hosted by Mines to encourage interest in CS@Mines

Linux Users Group (LUG)

Golden, Colorado

MEMBER

Fall 2018 - Current

- Interfaced with club to determine requirements for the servers I controlled as the CS@Mines system administrator (see experience section)
- Participated in club meetings to discuss and learn more about Linux and related subjects

Boy Scouts of America - Lone Tree, CO

Lone Tree

EAGLE SCOUT

September 2017

- Learned leadership skills through outdoor adventures including trips to Florida for sailing and Minnesota for backpacking