Porter Glines

porterglines@gmail.com | 208-380-2898 | Pocatello, ID. 83201
porterglines.com (portfolio) | github.com/po-gl | linkedin.com/in/porter-glines

Being diligent in my work and dedicated to software engineering as a craft led me to graduate at the top of my class and receive an outstanding graduate student award. Broad knowledge across the full tech stack with end-to-end projects in my portfolio. Proficient in a diverse set of programming languages and technologies, including C++, Rust, Python, C#, and Typescript. Always striving to expand and strengthen my skills.

Education

Master of Computer Science Idaho State University Pocatello, ID May 2022

- 4.0 GPA, Phi Kappa Phi, Outstanding Graduate Student 2021-2022, Thesis on Machine Learning.

Bachelor of Computer Science Idaho State University Pocatello, ID Dec 2019

- 3.6 GPA Graduated cum laude with a minor in Mathematics.

Experience

Research and Teaching Assistant Idaho State University Pocatello, ID Oct 2019 - May 2022

- Spearheaded research on constrained sequence generation using machine learning in ***Rust*** and ***Python***, leading to ***4 peer-reviewed publications***. The research leveraged complexity analysis, proof of correctness, and empirical results.
- Awarded Graduate Teaching Assistantship 2020-2021 and 2021-2022 and Summer 2021 Research Grant.
- Tutored and graded 186 students in upper-division/graduate courses, including *Computational Theory*, *Advanced Algorithms*, *Computational Creativity*, and *Machine Learning*.

IT Student Supervisor Idaho State University Pocatello, ID Sep 2016 - Oct 2019

- Executed university labs' Windows version transition through work on PowerShell scripts.
- Successfully managed and resolved IT issues for staff and faculty, demonstrating strong ***problem-solving***, ***debugging***, and ***troubleshooting skills***.
- Implemented training programs that improved the technical knowledge of supervised technicians.

Projects *(hosted on GitHub)*

Constrained Markov Model 2019 - 2021

- A high-performance implementation of a non-homogeneous Markov model presented at ICCC 2019 that demonstrates a natural language task: mnemonic device generation.
- Written in *C++* using a *thread pool pattern* for concurrency, *IPC* to a web back end, and the *Boost* library.
- In 2021, I wrote an extended version in *Rust* amounting to a novel algorithm, resulting in my master's thesis.

Pomodoro: Focus Timer iOS/watchOS App 2023 - 2024

- App Store-ready app that closely models the Pomodoro technique with a unique drag-and-drop UI.
- Maintain checklist of tasks/projects and reflect on results in data visualizations.
- Uses a back end service written in *Rust* using *Actix* and *Tokio* concurrency that can handle 200K concurrent requests on a low-end DigitalOcean VM as verified by *K6* load testing.

Relevant Coursework

Advanced Algorithms • Computational Theory • Database Design and Implementation • Networking and Virtualization • System Design and Analysis • Software Testing • Machine Learning • Data Visualization

Skills

C++ • Rust • Python • Go • Swift • C# • Java • JavaScript/TS • RESTful APIs • gRPC • SQL • MongoDB • Docker • Kubernetes • AWS • Distributed Computing • K6 • React • NodeJS • HTML/CSS • iOS/macOS Development • Agile Development Methodologies • Clean Code • Test-Driven Development (TDD) • Unit testing • CI/CD • Unix command line • Git