Porter Glines

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Master of computer science graduate with an emphasis on machine learning. Being diligent in my work and dedicated software engineering best practices led me to graduate at the top of my class and receive an outstanding graduate student award. Well-versed in various programming languages, including C++, Rust, Python, Java, 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

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 from ISU.
- 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

- Led 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 updated and extended version amounting to a novel algorithm in *Rust* for 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 the most affordable DigitalOcean VM as verified by *K6* load testing.

Relevant Coursework

Advanced Algorithms • Machine Learning • Applied Neural Networks • Data Structures • Computational Theory • Networking and Virtualization • Software Testing • Data Science • Data Visualization

Skills

C++ • Rust • Python • Go • Swift • Java • JavaScript/TS • RESTful APIs • gRPC • SQL • MongoDB • Keras • PyTorch • 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