Porter Glines

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Master of computer science graduate with an emphasis on machine learning. Being diligent in my work and dedicated to treating software engineering as a craft led me to graduate top of my class and receive an outstanding graduate student award. Well-versed in Python, Rust, Swift, and JavaScript.

Education

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

- 4.0 GPA, Phi Kappa Phi
- Outstanding Graduate Student 2021-2022
- Graduate Teaching Assistantship 2020-2021 and 2021-2022

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

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

Experience

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

- Collaborated on generative machine learning models in ***Python*** and ***Rust*** which led to ***4 peer-reviewed publications***
- Spearheaded research projects resulting in ISU establishing a place at the *International Conference on Computational Creativity* (ICCC) as well as a local conference (i-ETC)
- 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
Sep 2016 - Oct 2019 • Pocatello, ID

- Updated PowerShell scripts to facilitate labs' transition to Windows 10
- Successfully managed and resolved IT issues for staff and faculty, demonstrating strong ***problem-solving*** and ***troubleshooting skills***
- Implemented training programs, resulting in improved technical expertise of technicians

Projects *(hosted on GitHub)*

Thoughts: Mind Map Generating Web App using GPT-4

- Automatically generate mind maps using OpenAI's GPT-4 function calling API
- Organize and manipulate nodes with a performant node-based editor
- Written in *TypeScript* using *React*, *Node.js*, *Express.js*, and *MongoDB*

Constrained Hidden Markov Model *(Thesis)*

- Generated musical sequences styled after Bach chorales
- Results compared favorably against an Anticipation-RNN (Recurrent Neural Network)
- Written for performance in *Rust* with an 85% test coverage (unit tests)

Skills

Machine Learning • React • Node.js • Express.js • MongoDB • RESTful APIs • GraphQL • Docker • Kubernetes • PyTorch • Keras • HuggingFace APIs • Transformers • Recurrent Neural Networks (RNNs) • iOS Development • SwiftUI • UIKit • CoreData • Agile / Scrum • Clean Code • Test-Driven Development • CI/CD • SQL • Unix command line

Links

github.com/po-gl

linkedin.com/in/porter-glines

porterglines.com

Languages

Python

JavaScript/TS

Rust

Swift

Java

C++

Relevant Coursework

Computational Theory

Advanced Algorithms

Machine Learning

Data Science

Software Testing

Empirical Software Engineering

Database Design and Implementation