Porter Glines

208-380-2898 | porterglines@gmail.com

Education

May 2022 — **Masters of Computer Science** | Idaho State University

- 4.0 GPA, *Phi Kappa Phi*
- Thesis: *Imposing Structure on Generated Sequences: Constrained Hidden Markov Processes*
- Graduate Teaching Assistantship Grant 2020-2021 and 2021-2022
- Outstanding Graduate Student 2021-2022
- Related coursework: Computational Theory, Software Testing, Empirical Software Engineering, Advanced Algorithms, Machine Learning, Compilers, Quantum Programming

Dec 2019 — **Bachelor of Computer Science** | Idaho State University

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

Experience

Fall 2019 - May 2022 — **Research and Teaching Assistant** | Idaho State University

Research and teaching assistant to Dr. Paul Bodily for multiple courses including: ***Computational Theory*** and ***Machine Learning***. Tutored for upper-division and graduate level courses.

Sept 2016 - Oct 2019 — **IT Student Supervisor** | Idaho State University

Supervised and trained IT Support Technicians at ISU and retained an in-depth knowledge of Windows and MacOS to support users across the entire campus.

Projects *(hosted on GitHub)*

Constrained Hidden Markov Model *(Master's Thesis)*

Written in ***Rust*** with high test coverage. Performance is ***10x*** over a previous Python implementation. ***Generated musical sequences*** styled after Bach's Chorales. Generated music compared favorably against an Anticipation-RNN (neural network) in an ***IRB-approved survey***.

Mnemonic Device Generator using Markov chains

C++ multi-threaded program generating mnemonic devices and communicating through IPC to a ***Django*** server that serves a frontend. Presented this project at ICCC's 2019 conference in North Carolina.

Pomodoro: iOS and watchOS Tasks and Focus Timer App

Based on the Pomodoro technique developed by Francesco Cirillo. Uses Apple's declarative framework ***SwiftUI*** and ***CoreData***. Users have expressed significant increases in productivity after using the app.

Publications

Glines, P., Griffith, I., & Bodily, P. M. (2021). Software Design Patterns of Computational Creativity: a Systematic Mapping Study. *Proceedings of the 12th International Conference on Computational Creativity*, pages 218-221.

Glines, P., Biggs, B., & Bodily, P. M. (2020). A Leap of Creativity: From Systems that Generalize to Systems that Filter. *Proceedings of the 11th International Conference on Computational Creativity*, pages 297-302.

Glines, P., Biggs, B., & Bodily, P. M. (2020). Probabilistic Generation of Sequences Under Constraints. *Proceedings of the 1st Intermountain Engineering, Technology, and Computing Conference*, pages 135-140.

Bodily, P. M., Glines, P., & Biggs, B. (2019). "She Offered No Argument": Constrained Probabilistic Modeling for Mnemonic Device Generation. *Proceedings of the 10th International Conference on Computational Creativity*, pages 81-88.

Personal Information

- 208-380-2898
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- https://github.com/po-gl
- porterglines.com
- References upon request

Languages

Python ●●●●○
Rust ●●●●○
Java ●●●○○
Swift ●●●●○
C++ ●●●○○
JavaScript ●●○○○

Skills / Familiar With

- Agile / Scrum
- Clean Code
- Test-driven Development
- NeoVim
- Machine Learning
- Neural Networks
- UNIX command line
- BASH Scripting
- MacOS and Windows
- SQL
- LaTeX
- Academic Conference Reviewing