



# 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 2020-2022
  - Outstanding Graduate Student 2021-2022
  - Related coursework: Computational Theory, Software Testing, Empirical Software Engineering, Advanced Algorithms, Machine Learning, Compilers, Operating Systems, Systems Analysis and Design
- 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 a constrained Markov chain

**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.

## 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.

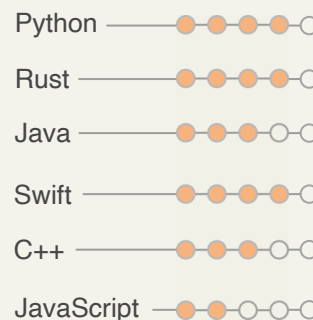
## Fields of Interest

Machine Learning, Horticulture, Mountain Biking, Snowboarding, Backpacking

## Personal Information

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

## Languages



## Skills / Familiar With

- Agile / Scrum
- Clean Code
- Test-driven Development
- Vim
- UNIX command-line
- Microsoft PowerShell
- BASH Scripting
- Windows Operating system and deployment tools
- MacOS
- SQL
- L<sup>A</sup>T<sub>E</sub>X
- Academic Conference Reviewing