# Jacob Broderick

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#### EDUCATION

# Oregon State University

Corvallis, OR

Bachelor of Science in Computer Science with applied option in Security

2017

### EXPERIENCE

### Coelo, Company by Design

Corvallis, OR

Software Engineer

Jun 2017 - Nov 2017

- C#: Processed images of fish in C# resulting in data being saved for lab technicians saving many hours per week.
- **Prototype design**: Designed and implemented prototypes with the purpose of updating deprecated machine learning software to perform updated requirements.

HP inc. Corvallis, OR

Software Engineering Intern

Jun 2016 - Aug 2016

- Oracle Tools, SQL: Created an Oracle SQL database object that saves time by computing over 40 terrabytes of data ahead of time.
- **SQL Analytics**: Queried a big data database for information regarding ink using SQL which resulted in managers finding errors in processes more quickly.

### Center for Applied Systems and Software

Corvallis, OR

Student Software Developer

May 2014 - Jun 2015, Sep 2015 - Jun 2016

- C# MVC: Member of Agile team responsible for the design and implementation of a restful interface for an ODOT emergency response application which reduced the response time of emergency teams in the state of Oregon.
- TFS, Documentation: All projects were documented using specific government document formats and stored in Microsoft team foundation services.
- C# Networking, Microsoft SQL server: Created an interface to the travel time system seen on Oregon highways that allows outside counties to make use of the system and stored information for ODOT to predict traffic trends.

### Center for Applied Systems and Software

Corvallis, OR

Student Test Engineer

Jun 2015 - Sep 2015

• **Python**: Created automated tests with TCL and Python which saved active time during tests that could take 3 or more hours.

#### Projects

- Simple Raft Implementation: Simple implementation of the raft consensus algorithm in Go. The raft algorithm prevents data loss by having a leader copy it's data to child processes. In the case of an error the algorithm will elect a new leader and all other servers will keep up to date with the new leader. Developed leadership voting and server connection algorithms, and learned about distributed systems algorithms.
- Starcraft AI: Worked on a senior project team with well documented requirements. Created a working AI that would play the game Starcraft Brood War using an API designed for controlling the game. The project was required to be well documented and clean to allow other students to continue the project. Built with C++ using Visual Studio with git as version control.

## Programming Skills

- Languages: : C#, SQL, Python, C++, Go, Javascript/Jquery
- Technologies: MVC, Git, Oracle Database Tools, Agile, TFS, Jasmine