# Ryan Neisess

#### **Education**

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B. S. Computer Science - Washington State University - Pullman

Courses: Advanced Data Structures, Algorithm Design/Analysis, Systems and Operating Systems, Machine Learning, Security, Networks

B. S. Animal Sciences - Washington State University - Pullman *Minors:* Chemistry, Japanese

Grad. May 2016

Magna Cum Laude

Grad. May 2020

GPA: 3.82

## **Experience**

Software Engineering Intern at Premera Blue Cross Mountlake Terrace, WA (Jun 2019 to Aug 2019)

- Provided quality-of-life updates/fixes for a Microsoft Dynamics/CRM desktop app to improve service rep response time and customer satisfaction
- Worked with the team in Agile and hotfix dev/ prod environments, plus managed SQL queries and monitoring across multiple databases

TA for CS 1, CS 2 Courses in C, C++ WSU - Pullman, WA (Jan 2016 to Dec 2018)

- Expanded fundamentals by teaching data structures and object-oriented design, regularly achieving top exam & evaluation scores across 10-20+ sections
- Emphasized program development and design through critical thinking, debugging, testing, and collaboration

## **Projects and Extracurriculars**

Linux Compatible EXT2 File System in C

- Supports core file system commands (mkdir, rmdir, etc) and file I/O operations (cat, cp, etc), and is mountable by Linux systems
- Utilizes pointer and bit manipulation, and inode management, with exact EXT2 file types and includes double indirect block support

Spreadsheet GUI Application in C#

- WinForms desktop app developed and tested in five working stages, using design patterns including factory method and observer
- Implements core math operations with expression trees and Dijkstra's shunting-yard, event handling to update cells, and load/save with XML

Linear Regression Perceptron Classifier in Python

- From-scratch novel improvement on multilayer perceptron with cross-fold validation, tested against scikit-learn library implementations
- Includes hyperparameter testing, such as learning rate and tolerance, and successfully out-performs classic methods on more complex data sets

Crimson Code Hackathons

- 2019: Worked in a team of 3 designing the user interface and flow of user interaction using **Kotlin** and **Android Studio** for an Android **mobile app**
- 2017: Worked in a team of 4 to build a GUI desktop application in C++ using SFML for a campus-wide accessible and shortest paths map

#### **Skills**

Languages C, C++ (experienced), Python (proficient), C# (proficient), SQL (familiar)

Technical Version Control (*Git*), Linux, Adobe Illustrator, Project Mgmt Professional Training

#### **Honors and Awards**

**Google Kickstart** Mini-Competition Winner (Sept 2018)

Honors Elec Engr & Comp Sci **Outstanding TA**, Multicultural Student Services Recognition Speaker Scholarships Richard Rhiger; Ralph & Gladys Lowry; James Ewing; WSU Dean's, Cougar Academic Award