

# ALEX DAY

Grove City, PA · adday@clemson.edu · (724) 841 2634 · <https://alexday.me>

## EDUCATION

### Clemson University

Ph.D. Computer Science

Clemson, SC

September 2020

### Clarion University of Pennsylvania

B.S. Computer Science (*cum laude*)

Clarion, PA

August 2016 - December 2019

## SKILLS

Programming Languages: Python, Java, C#, C/C++, HTML/JavaScript/CSS

Technologies: Linux, Git, L<sup>A</sup>T<sub>E</sub>X, Tableau, Robot Operating System/Gazebo, SQL

## EXPERIENCE

### Clemson University

*Lead Graduate Teaching Assistant*

Clemson, SC

September 2020

- Assist faculty members with instruction using remote learning technologies
- Lead two lab sections of 30 students to reinforce new software development techniques

### JGMS Inc.

*Data Scientist (R&D)*

Grand Rapids, CO

May 2020 - September 2020

- Designed neural networks for massive document classification and bid prediction with Keras in Python
- Developed REST API using Flask to expose an endpoint for document summarization and classification
- Conducted market research to determine market gaps for future projects

### University of Arizona

*CAT Vehicle Research Assistant (REU)*

Tucson, AZ

May 2019 - August 2019

- Worked within a team of 3 to develop a simple way to create autonomous vehicle paths with WebGME for use in a 4th grade curriculum
- Developed a verification server in Flask that performed reachability analysis on a given path
- Prepared and presented research at the UROC conference at the University of Arizona
- Extensively tested the project in both simulation and on the Cognitive and Autonomous Test (CAT) Vehicle

### Komatsu Mining Ltd.

*Student Engineer*

Franklin, PA

May 2018 - August 2018 and December 2018 - January 2019

- Implemented a logging management tool in C# to be used on all Komatsu Mining equipment
- Created data analysis tools in Excel VBA and Python to assist with debugging of all mining machines
- Augmented the Longwall Shearer testbed with a powercycle scheduler built on the Raspberry Pi platform

## PROJECTS

### [Collision Avoidance Evaluation](#) Python, C++, Cython

- Developed a Cython wrapper for the official C++ PowerLaw simulation
- Implemented interaction overhead and energy efficiency calculations to evaluate simulations
- Created an efficient pipeline for evaluating different algorithms on various agent configurations

## LEADERSHIP AND INVOLVEMENT

### Association of Information Technology Professionals

August 2016 - December 2019

Clarion, PA

*President*

August 2018 - May 2019

- Ran weekly meetings to update members on activities of the group
- Hosted multiple hour long seminars on topics including version control and robotics

*Vice President*

August 2017 - May 2018

- Assisted in running weekly meetings to update members on activities of the group
- Hosted multiple hour long seminars on topics including open source and unit testing

## AWARDS

Clarion University CS Dept. Student of the Month

December 2019

Clarion University Deans List

Fall 2018, Spring 2019

Elizabeth Ross AITP Scholarship

2018, 2019

George Lewis Scholarship

2018, 2019

Joy Scholarship

2016