Riley Tallman

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EDUCATION

Arizona State University
Graduating December 2020

Computer Science, MS with Honors

- Specializing in AI and Computer Vision

SKILLS

Programming Languages	C++, Python, git, SQL, C, Java
Libraries	Keras, sklearn, OpenCV, dlib, ROS
Other	Statistical Machine Learning, Scrum, Linux, VS Code, MS Word, Inkscape

EXPERIENCE

Systems Imagination
May – August 2019

Artificial Intelligence Engineer – Tempe, AZ

- Led a team of four to improve database access algorithms with AI and patented hypergraph structures
- Used machine learning to predict 7.5 million magnetic interactions between two atoms in molecules with a data-driven approach
- Enhanced predictive models by engineering 1,000 features using an NVIDIA DGX workstation

Teaching Assistant
August – December 2019

CSE471 Intro to Artificial Intelligence – Tempe, AZ

- Taught AI concepts and held review sessions for 150 students
- Assisted students with python projects

DriveTime
May – August 2018

Cyber Security Intern – Tempe, AZ

- Reduced inquiries by 10% after building a Sharepoint website to handle internal and external data loss of sensitive IT Compliance documents
- Built automated security dashboards monitoring email & web filtering and anti-virus software with REST APIs and python
- Administered phishing security tests to 5,000+ employees

PROJECTS

Senior Capstone
January 2019 – Present

Autonomous Driving Worldwide Competition

- Competing to achieve the fastest lap time in a simulated robotic environment using reinforcement learning

Honors Thesis
January 2019 – Present

Smartphone Computer Vision

- Training an efficient convolutional neural network to identify the user

Data Structures & Algorithms
January 2019 – Present

C++ Word Unscrambler

- Conglomerated 240k dictionary words into a hash table with chaining collision resolution
- Quickly compared all permutations of an input string in linear time $O(1)$