Tyler A. Romero

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EDUCATION

Stanford University, School of Engineering, Stanford, California **May 2018**
Master of Science in Computer Science, Artificial Intelligence and Machine Learning focus, GPA 3.96

Texas A&M University, Dwight Look College of Engineering, College Station, Texas **May 2016**
Bachelor of Science in Computer Engineering, Mathematics minor, GPA 3.89
University Honors Program, Aggie Computer Science and Engineering Scholars Program
Education funded through full merit-based scholarship to Texas A&M University

EXPERIENCE

Microsoft Corporation, Redmond, Washington **May 2015 – Present**
Software Engineer Intern, Information Management and Machine Learning *Summer 2016, 2017*

- Implemented an end-to-end machine learning solution for predicting patient length of stay at hospitals
- Trained a Convolutional Neural Network to predict incidences of lung cancer from low-dose CT scans
- Created olapR, an R package that allows for easy access to data stored in OLAP cubes

Software Engineer Intern, Office File IO *Summer 2015*

- Implemented a sync scheduler retry mechanism that improved sync reliability with OneDrive by 3%
- Improved debugging efficiency by writing a tool to perform pattern analysis of debug logs

Stanford University, Stanford, California **Sept 2017 – Present**
Course Assistant, CS106A: Programming Methodology (Prof. Mehran Sahami)

- Taught two weekly sections to twenty-six students covering programming concepts in Java
- Mentored students in one-on-one sessions to help them improve programming style and thought process

Bloomberg L.P., New York City, New York **May 2014 – August 2014**
Financial Software Engineer Intern, Asset and Investment Management

- Designed an autocomplete service in order to optimize workflow across multiple Bloomberg functions
- Reduced unnecessary computational efforts by leveraging the new autocomplete service

PROJECTS (selected)

RattLe: A Reinforcement Learning Agent for Slither.io **May 2017**

- Implemented a Deep Q-Learning model and an Actor-Critic model for playing slither.io, a MMO game
- Created a novel Deep RL model incorporating RNNs that resulted in a 20% improvement in average score

Image Classification on ImageNet Dataset **May 2017**

- Optimized various CNN models, including Residual Networks and Inception Networks, for the ImageNet dataset
- Implemented cyclic learning rates for creating snapshot ensembles with just one training session

Reading Comprehension with Deep Learning on SQUAD Dataset **March 2017**

- Developed a two-phase question answering model using Match-LSTM with bi-directional answer pointers
- Attained an F1 score of 53.04

Dynamic Allocation of Emergency Resources **December 2016**

- Developed a reinforcement learning model that learns online to dispatch emergency vehicles
- Achieved simulated average response times 15% shorter than a greedy baseline

AWARDS AND SCHOLARSHIPS

2017 APT Stanford Data Science Case Competition, 1st Place
Craig Brown Outstanding Senior Engineer Award, *highest honor awarded by Dwight Look College of Engineering*
Mays Business School Fellow
National Merit Scholarship and Recognition Award
Brown Foundation Scholarship
Texas A&M President's Endowed Scholarship

TECHNICAL SKILLS (selected)

Concepts: Machine Learning (regression, classification, clustering, data cleaning), Deep Learning (CNNs, RNNs)
Software: Python (scikit-learn, pandas, numpy, scipy, tensorflow), R (dplyr, ggplot, rcpp), SQL, C/C++, Java, Linux