Daniel Zeng

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University of California, Berkeley *May 2021 (Expected)*
Computer Science, Bachelor's Degree GPA 3.94

Relevant Courses

CS189 - Machine Learning, CS170 - Algorithms, CS188 - Artificial Intelligence, CS61B - Data Structures, CS70 - Discrete Math and Probability Theory, CS61C - Machine Structures, EE16B - Info/Systems, MATH54 - Linear Algebra

Skills

Languages: Python, Java, C, C++, Javascript, Golang, Assembly (RISC-V)
Platforms/Tools: TensorFlow, NumPy, PyTorch, Matplotlib, Git, AWS, Bash, Pandas, HTML/CSS, Requests, Sockets, JUnit

Experience

Software Engineering Intern — Microsoft, Azure Production Infrastructure *May 2019 - Present*

- Developed tool to generate summary of incidents (incident management) for given timeframe
- Leveraged internal query language to aggregate data and provide statistics to improve livesite review process and highlight impacts on customer experience (e.g. Walmart, Chevron)

Research Assistant — AutoLab, Berkeley Artificial Intelligence Research Lab *Feb 2019 - Present*

- Working under postdoc Ajay Tanwani in Ken Goldberg's lab on machine learning research
- Implementing and researching unsupervised domain adaptation using adversarial learning
- Investigating adaptation algorithms and network architectures across various datasets

Project Leader/Machine Learning Developer — Cal Launchpad, UC Berkeley *Sept 2017 - Present*

- Project GrubGen (*Jan 2019 - May 2019*)
  - Lead team of 8 developers to implement GAN models for food image generation
- Project Facelift (*Jan 2018 - May 2018*)
  - Implemented convolutional neural networks to reconstruct 3D facial volume from 2D image
- Other projects: Project DeepBeat (*Sept 2017 - Dec 2017*), Ford Consulting (*Sept 2018 - Dec 2018*)

Software Engineering/Research Intern — NASA, Ames Research Center *June 2018 - Aug 2018*

- Developed an emulator for cyber security attacks on Air Traffic Management (ATM) system using existing ATM Testbed framework
- Built and tested functionality to generate and visualize a wide range of attack scenarios
- Implemented methods to model aircraft trajectory from specified origin to destination
- Created internal tool to configure Testbed framework components for interfacing with emulator

Vice President — Upsilon Pi Epsilon, Nu Chapter at UC Berkeley *Dec 2018 - Present*
Research Assistant — Dal Bó Lab, UC Berkeley *Sept 2017 - May 2018*

Projects

Chess Game (github.com/daniel-zeng/ChessGame) (Python, tkinter)

- Implemented minimax tree search with Alpha-Beta pruning, and position evaluation functions (piece square tables/piece values) to optimize the AI engine
- Playable through graphical user interface and command-line with algebraic notation

Also on Github**:** Markov models for text generation, Variational autoencoder for MNIST generation