Daniel Zeng

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University of California, Berkeley *May 2021 (Expected)*
Computer Science, Bachelor's Degree GPA 3.92

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

Skills
Languages: Python, Java, C, C++, Javascript, GNU Octave
Platforms/Tools: TensorFlow, NumPy, PyTorch, Matplotlib, Git, AWS, Bash, Pandas, HTML/CSS, Requests, Sockets, JUnit

Experience

Project Leader/Machine Learning Developer — Cal Launchpad, UC Berkeley *Sept 2017 - Present*
- Project GrubGen (*Jan 2019 - Present*)
  - Leading 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
  - Used dlib to preprocess facial features and perform facial alignment
- Other projects: Project DeepBeat (*Sept 2017 - Dec 2017*), Ford Consulting (*Sept 2018 - Dec 2018*)

Research Assistant — AutoLab, UC Berkeley *Feb 2019 - Present*
- Working under postdoc Dr. Ajay Tanwani in Ken Goldberg's lab on machine learning research
- Implementing techniques for data domain adaptation using variational autoencoders

Professional Development Chair — Upsilon Pi Epsilon, Nu Chapter *Dec 2018 - Present*
- Leading professional development committee of 20+ people to improve recruiting skills
- Organized and held multiple workshops including resume, interviews, and negotiations

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

Research Assistant — Dal Bó Lab, UC Berkeley *Sept 2017 - May 2018*
- Developed methods for natural language processing to extract text from archaeological journals

Research Intern — Bhatia Lab, Boston University *July 2016 - Aug 2016*

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