Michael Huang

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Education

- **University of California,** Berkeley, CA
  Intended B.S. in Computer Science *Aug. 2018 – 2022*
- **Henry M. Gunn High School** Palo Alto, CA
  AP Computer Science, Multivariable Calculus *2014 - 2018*

Work Experience

- **RiteTag**
  Software Engineer Intern *July 2016 - September 2016*
  - **iOS Programming:** Wrote the iOS apps in Swift, in which I created a front-end interface for an easily accessible and concise interface of data from RiteTag's back-end algorithms.
  - **Data Visualization:** Visualized data in graphs, pie charts, tables, and maps to the app users.
  - **Login Integration:** Integrated Facebook and Twitter login with the app, and linked them to a RiteTag account in backend.
  - **Search Functionality:** Added search functionality with filters to the app that interacting with the backend API to pull corresponding info.
- **Acedit**
  Lead Technology Developer for School Club *September 2015 - 2017*
  - Created Acedit, an iOS app for a students at our school for homework help. I worked both the front-end and the back-end.
  - **Notifications:** Service for sending email, push and in-app notifications. Integrated with Amazon SNS
  - **Recommendations:** Recommendation system based off of user actions and viewing history to recommend topics of interest.

Awards

- **PennApps** University of Pennsylvania
  Best Machine Learning Hack: Karo *Fall 2017*
  - **Machine Learning:** Trained a convolutional neural network to recognize text bubbles in an image. Network was trained on thousands of manga panels scraped from image boards.
- **MIT Beaverworks** Massachusetts Institute of Technology
  Ranked #2 *Summer 2017*
  - **Personalized AI:** Coded in Python neural networks, frameworks, and a personalized assistant that integrated with Amazon Alexa that placed second.
- **Zero Robotics** Massachusetts Institute of Technology
  International Rank #4 *2016*
  - **Navigational Software:** Worked in a small team to write code in C/C++ for the NASA's SPHERES satellites. Critical skills in planning out strategies for the robot and to optimize satellite movement and code size.

Projects & Publications

- **Image Reconstruction through Generative Adversarial Networks:** Research Paper on repairing damaged images (inpainting) using the GANs Model. PDF at: https://michaelyh.com/ganreconstruction.pdf
- **Generative Adversarial Label to Image Synthesis:** Developed a model that used Deep Convolutional Generative Adversarial Networks to generate images given a set of labels.
- **Rain Project:** Co-developed a 2-d metroidvania, action-heavy game in Unity and C#. Game and level design, physics engine, collision detection, attack patterns, and animations.
- **Gunn Business Webmaster:** Wrote full stack for the club's website. Used MongoDB and Node.js for front & back.

Programming Skills

- **Languages:** Java, Python, JavaScript, C, C++, Swift, Objective-C, C#
- **Technologies:** AWS, MongoDB, Tensorflow, Node.js, Bootstrap, Unity, Heroku, Firebase