Daniel Ho

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Education

- **University of California, Berkeley** — Berkeley, CA
  M.S., Electrical Engineering & Computer Science (Computer Vision Focus); GPA: 4.00 — *Aug 2019 – May 2020*
- **University of California, Berkeley** — Berkeley, CA
  B.S., Electrical Engineering & Computer Science; GPA: 3.94 — *Aug 2015 – May 2019*

Industry Experience

- **Facebook | Stories Creation Core Team** — Menlo Park, CA
  Software Engineer Intern — *May 2019 – Aug 2019*
  - Leveraged existing OpenGL infrastructure to extend swipeable filters used in Facebook Stories for iOS devices with post capture image enhancing filters
  - Refactored video trimming and tag tools' infrastructures to encourage code modularity and improve maintainability and extandability of codebase
  - Implemented redesign of doodle tool UI to improve user experience and tool usage
- **Amazon Lab126 | Alexa Local Search Platform Team** — Santa Clara, CA
  Software Development Engineer Intern — *May 2018 – Aug 2018*
  - Designed and implemented a service that makes calls to NoSQL database to provide internal Alexa clients with requested data and performs query parsing to identify search keywords
  - Performed load testing to analyze functionality and latency of new system compared to existing system

Research

- **RISE Lab** — Berkeley, CA
  Graduate Student Researcher — *Aug 2019 – May 2020*
  - **NBDT: Neural-Backed Decision Trees** – constructed decision tree-based classifiers using neural network weights to improve interpretability of neural networks while maintaining state-of-the-art accuracy
  - **SegNBDT: Visual Decision Rules for Segmentation** – extended NBDT method to semantic segmentation and modified black-box saliency methods to improve visually-grounded interpretability of models
- **ADEPT Lab** — Berkeley, CA
  Undergraduate Researcher — *Jan 2018 – May 2019*
  - **Efficient Semantic Segmentation by Uncertainty-Based Downsampling** – investigated entropy-based, non-uniform downsampling method to improve accuracy and reduce computation costs
- **RISE Lab** — Berkeley, CA
  Undergraduate Researcher — *Jun 2017 – Aug 2017*
  - **High Accuracy Approximation of Secure Multiparty Neural Network Training** (AISys 2017) - explored linear approximations of common activation functions to improve accuracy of convolutional and recurrent neural networks in the context of efficient encryption

Projects

- **EthTracker (daniel-ho.github.io/EthTracker)** — *Jun 2017 – Aug 2017*
  - Dynamically updated web page data and visualizations made with D3.js in real-time using a combination of socket.io library and HTML requests from CryptoCompare API

Skills

- **Languages**: Python, Java, SQL, Obj-C
- **Libraries/Frameworks**: PyTorch, Tensorflow, scikit-learn, NumPy, Matplotlib