

# Corey Hu

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## EDUCATION

### University of California, Berkeley

B.A. Computer Science | 2016 – 2020

- Dean's List (Spring 2017): Top 4% Semester GPA

## EXPERIENCE

### Cal Hacks: January 2019 – Present

Director | Design and Sponsorship Teams

- Striving to increase inclusivity within tech by making Cal Hacks 6.0, the world's largest collegiate hackathon, a reality
- Raised \$14,000 after 3 months of sourcing and contacting 500+ tech companies and startups
- Increased response rate by 15% after refreshing email templates and sponsorship materials and opening an online sponsorship site for inbound emails

### Qualcomm: May 2019 – August 2019

Computer Vision Systems Intern | GLANCE Systems Team

- Worked on GLANCE, a low-power computer vision sensor for object detection with ensemble cascading classifiers in a low-resolution and low-framerate environment
- Improved accuracy by 8% by designing a post-processing step involving dual IIR filters and stratification
- Developed an optimizer for tuning filtering parameters using analytical solvers on convex optimization problems that could be deployed and run offline

### Berkeley Artificial Intelligence Research Lab (BAIR Lab): January 2018 – May 2019

Undergraduate Researcher | Deep Learning Optimization

- Worked on the AIKA project for automated data modeling via optimizing machine learning/deep learning pipelines and architectures to generalize to a breadth of datasets and applications
- Researched lifted neural network (LNN) frameworks and adaptive activation functions with Professor Laurent El Ghaoui
- Created a parallelizable block coordinate descent optimizer in Tensorflow, capable of solving multivariable optimization problems under non-negativity constraints

### Tencent AI Lab: May 2018 – August 2018

Machine Learning Research Intern | Computer Vision and Instance Segmentation

- Developed a two-tower MaskRCNN and ensemble U-Net model designed to be robust towards small datasets and different cell types for nuclei instance segmentation (30 training images with ~22,000 nuclear boundary annotations)
- Co-authored a manuscript (Generalized Nuclear Segmentation using a Deep Convolutional Neural Network Method) detailing our model architecture, training schedule, and results to be published in a scientific journal
- Model performance ranked 9th and 14th in the MICCAI MoNuSeg and Digital Pathology Challenges respectively

## PROJECTS

### Whitespace

- Speech and presentation coaching app using using Bose AR SDK, Swift, and iOS Speech Recognition API

### OCRCpt

- iOS app for OCR receipt recognition and bill splitting using XCode, Swift, Python, and the Google Vision API during the 36-hour Cal Hacks Hackathon

### Kickeroo (2018 Hack for Humanity Award Winner)

- A fetal kick reader for gauging fetus health during the third trimester of pregnancy using Arduino EMG sensors

### RapNN

- GRU neural network using Python and Tensorflow for generating song lyrics using markov chains

## SKILLS

**Languages:** Python, Java, C, C#, HTML, CSS, SQL, Javascript, MATLAB

**Libraries:** Tensorflow, keras, scikit-learn, Numpy, Scipy, OpenCV, Apache Spark, Hadoop, Pytorch, Docker, HDFS

**Platforms:** git, Linux/Unix, Amazon Web Services (AWS EC2)