

# Bill Zhou

## EMAIL

billzhou@berkeley.edu

## LOCATION

San Francisco, CA

## WEBSITE

billzhou.me

## Highlights

- Significant industry/internship experience. Demonstrated research ability.
- Strong teamwork/communication skills. Co-Founder of Y-Combinator backed company.
- Innovative thinker. 2018 U.S. National Champion in Microsoft Imagine Cup Competition.

## EDUCATION

### UC Berkeley

M.S. EECS

GPA: 3.87

Aug 2018 - May 2019

**Advisers:** Prof. S. Shankar Sastry, Allen Y. Yang

**Relevant Coursework:** Systems and AI, 3D Reconstruction, AR/VR Applications, Secure ML

**Thesis:** *Real-time Tracking of Deformable Human Avatars by Fusing Low-Dimensional 2D and 3D Kinematic Models*

### UC Berkeley

B.A. Computer Science

GPA: 3.83

Aug 2015- May 2018

**Relevant Coursework:** Advanced OS, Machine Learning, NLP, Algorithms

**Research:** Lead and main contributor of UC Berkeley founded open-source project OpenARK. (billzhou.me/OpenARK)

**Awards:** Cal Alumni Scholarship, Dean's Honor (Top 4% of undergraduates)

## WORK EXPERIENCE

### CO-FOUNDER / CTO

PengramAR

Berkeley, California

Aug 2018 - July 2019

- Y-Combinator backed (W19 Class) - pengramar.com
- Created monocular camera-based indoor navigation and localization solution on iOS
- Combined NetVLAD and Superpoint to recovery 6DoF camera pose in feature-sparse indoor environments.
- Achieved 5 degree rotation and 0.6 meter translational error in a 7000 square feet, 3 story building.

### SOFTWARE ENGINEERING INTERN

Facebook

Seattle, Washington

May 2018 - Aug 2018

- Member of the Search NLP team developing distributed memory capabilities
- Redesigned query expansion component to retrieve NLP models from distributed memory on demand rather than preload into local memory
- Diminished the network impact to +0.3 milliseconds through implementation of massively parallel processing and order agnostic pre-ranking
- Allowed Facebook Search to tailor to trending events within ~15 min rather than hours through enabling real time backend model hot swap

### SOFTWARE ENGINEERING INTERN

Google

New York City, New York

May 2017 - Aug 2017

- Member of the Local Discovery team developing unsupervised language models to capture latent sentiments in user reviews
- Developed deep neural network to featurize 5.5 million English review texts into continuous low dimensional vectors
- Increased Google Maps attribute coverage by 14 million across 400,000 unique businesses with vectorized user reviews as an additional inference signal
- Directly impacted the quality of local queries and related places

### SOFTWARE ENGINEERING INTERN

Salesforce

San Francisco, California

May 2016 - Aug 2016

- Member of the Core Infrastructure team developing Salesforce's continuous deployment pipeline
- Implemented new delivery mechanism to prioritize the decompression order of artifacts based on change velocity
- Developed "linked containers" to share common dependencies between multiple application containers while maintaining mutual isolation
- Reduced Salesforce core app (9 GB) deploy time by 40%

## PUBLICATIONS

**Bill Zhou**, Alex Yu, Joseph Menke, and Allen Y. Yang. *Real-Time Hand Model Estimation from Depth Images for Wearable Augmented Reality Glasses*. Adjunct Proceedings of ISMAR, 2019 (Paper - billzhou.me/hand | Video - billzhou.me/hand\_demo)

**Bill Zhou** and S. Shankar Sastry. *Tracking of Deformable Human Avatars through Fusion of Low-Dimensional 2D and 3D Kinematic Models*. Master's thesis, EECS Department, University of California, Berkeley, May 2019. (Paper - billzhou.me/human | Video - billzhou.me/human\_demo)