

Kehan (Jason) Wang

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Deep-learning enthusiast skilled in ML,
Computer Vision and software development.

EDUCATION

Master of Science, Computer Science

University of California, Berkeley
Spring 2022 (Incoming Student)

Bachelor of Arts, Computer Science

University of California, Berkeley
Senior, Spring 2021 GPA: 3.90

COURSEWORK HIGHLIGHT

CS 182: Deep Neural Networks
CS 188: Artificial Intelligence
CS 189: Machine Learning
CS 194-26: Computational Photography
CS 280: Computer Vision
CS 285: Deep Reinforcement Learning

RESEARCH

sensAI

RISE Lab - UC Berkeley

- Robotics: Distribute a drone's central controller work onto four individual propellers with Policy Gradient and Imitation learning on MPC using PyTorch.
- Wavelet: By interleaving different GPU's peaks and valleys in memory usage, our tick-tock training scheduler can achieve >2x speedup.
- Paper accepted by MLSys 2021.

Barcode Detection in High Resolution Images

BAIR - UC Berkeley

- Propose a new detection pipeline using regional proposal to find regions of most barcodes, fully convolutional network for pixel-wise classification, and OpenCV methods for bounding box extraction.
- Faster and more accurate than YOLOv4, Mask-RCNN and state-of-the-art barcode detection models.
- Paper submitted to ICIP 2021.

Multi-modal Semantic Misinformation Detection

BAIR - UC Berkeley

- Detect if a Facebook post matches its video content.
- Use 3D CNN, BERT to extract video, language features, and embed them to the same semantic space to classify if they are a match.
- Self-supervised by learning to predict post reactions.

WORK EXPERIENCE

Software Development Intern

Microsoft - Redmond, WA

May 2020 - Aug 2020

- Developed new features on Microsoft Teams Desktop/Webclient using Angular, Typescript, C#.

Mobile Software Intern

Brilliant Home Technology - San Mateo, CA

May 2019 - Aug 2019

- Implemented new features on Brilliant Smart Home Control mobile app using Kotlin and Swift, with MVVM architecture, ReactiveX programming.

Full-Stack Software Intern

California PATH - Berkeley, CA

Jun 2018 - May 2019

- Developed a transit app that supports bus-user location matching. Implemented using Flask APIs, PostgreSQL and React-Native.

Backend Software Intern

Simpatica Medicine, Inc - Berkeley, CA

Feb 2018 - May 2018

Lab Assistant EE16A/B

UC Berkeley

Jan 2018 - May 2019

PROJECT

Facial Keypoint Detection

- Used ResNet18 and multiple data augmentations. Scored 5th place in class Kaggle competition.

Augmented Reality with OpenCV

- Used Harris corner detector and median flow bounding box tracker to track anchors.
- Draw objects onto the anchor mesh with OpenCV.

HONOR

1st Place Winner of Cal Hacks 5.0

Navii

- 1st place in Cal Hacks 5.0, a 36-hour hackathon with ~2000 hackers, ~250 teams from all over the world.
- Navii is an AR mobile app for indoor navigation.

LEADERSHIP

Industrial Relations Chair

Upsilon Pi Epsilon, Nu Chapter

Jan 2020 - Dec 2020

Student Union President

Nanjing Foreign Language School

PROGRAMMING LANGUAGES

Python, Java, C/C++, PyTorch, Tensorflow, Kotlin, Swift, React-Native, GO, JavaScript, SQL, HTML, C#