Kehan (Jason) Wang

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Skilled in Computer Vision, Representation Learning and software development.

EDUCATION

Master of Science, Computer Science
University of California, Berkeley
Spring 2022 (Expected)

Bachelor of Arts, Computer Science
University of California, Berkeley
Senior, Spring 2021 GPA: 3.91

WORK EXPERIENCE

Research Intern
Coohom - Hangzhou, China
May 2021 – Aug 2021

- Propose a Transformer-based model to find face loops in 2D line drawings.
- Existing methods use various heuristic searches. We formulate face identification as a seq2seq problem.
- Use co-edge to give our model a stronger prior.
- > 90% recall and precision in face detection.
- Reconstruct 3D model based on face information.
- Paper accepted by CVPR 2022.

Software Development Intern
Microsoft - Redmond, WA
May 2020 – Aug 2020

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

Mobile Software Intern
Brilliant Home Technology - San Mateo, CA
May 2019 – Aug 2019

- Developed new features on Brilliant Smart Home Control mobile app using Kotlin and Swift.

Full-Stack Software Intern
California PATH - Berkeley, CA
Jun 2018 – May 2019

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

Backend Software Intern
Simpatica Medicine, Inc - Berkeley, CA 2018 Spring

Lab Assistant EE16A/B
UC Berkeley Jan 2018 – May 2019

COURSEWORK HIGHLIGHT

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

RESEARCH

Multi-modal Semantic Misinformation Detection
BAIR – UC Berkeley, 2022

- Detect if a social media post's text description matches with its video content.
- Experiment with both contrastive learning and Masked-language Modeling given video.
- Device a probability rule in explainable misinformation detection with unsupervised training.

Barcode Detection in High Resolution Images
BAIR – UC Berkeley, 2020

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

sensAI
RISE Lab – UC Berkeley, 2020

- Robotics: Distribute a drone's central controller work onto four individual propellers with Policy Gradient and Imitation learning on MPC.
- Wavelet: By interleaving different GPU's peaks and valleys in memory usage, tick-tock training scheduler achieve 1.88x speedup in PyTorch.
- Paper accepted by MLSys 2021.

HONOR

1st Place Winner of Cal Hacks 5.0

- 1st place in Cal Hacks 5.0, a 36-hour hackathon with ~2000 hackers, ~250 teams from all over the world.
- Developed 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#