Yibin Li

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Education

University of California, Berkeley GPA: 3.6

*Fifth Year Master in **Electrical Engineering and Computer Science*** *May 2021 - May 2022*

*Bachelor of Science in **Electrical Engineering and Computer Science*** *Aug 2017 - May 2021*

Relevant Courses: Efficient Algorithms, Data Science, Machine Learning, Optimization, Computer Vision, Robotics

Technical Skills

Programming Languages: Python, Java, JavaScript, SQL, HTML, CSS, Scheme, C/C++
Technologies: PySpark, **Hadoop**, Hive, Pig, **Linux**, **Git**, Bash, Docker, AWS, React Native, **ROS**
Machine Learning: PyTorch, Tensorflow, **OpenCV**, OpenAI Gym, TensorBoard, **NumPy**, **SciPy**, Pandas

Professional Experience

Verizon Media

Software Engineering Intern, Yahoo! Mail Intelligence *Jun. 2020 - Aug. 2020*

- Developed a more scalable and adaptive multi-task deep learning model (decaNLP) for email question/answering on Yahoo! mail data than traditional editorial rule-based extraction baseline
- Built a reusable distributed data processing pipeline with Spark, Hadoop, Hive, Pig; saved processed data to HDFS
- Trained the model on **100 million** records of email data and achieved **90% F1 score**

Berkeley AI Research Lab (BAIR)

Undergraduate Researcher, advised by Professor Avideh Zakhor *Apr. 2020 - present*

- Researched on UAV thin obstacle avoidance from monocular depth estimation in the long-range and sparse point cloud in the short-range
- Accurately detected thin objects by constructing point cloud from Intel T265 and D435 camera pose triangulation; interfacing with ROS realtime streaming data on Nvidia Xavier
- Designed a regression-based algorithm to convert relative depth from monocular depth estimation model to absolute depth; the converted absolute depth pixel-wise error is within **±6%** of the ground-truth depth map

UC Ergonomics Lab

Undergraduate Researcher, advised by Professor Carisa Harris *Jun. 2019 - Aug. 2019*

- Helped assembly line workers understand their daily activities and prevent potential physical injury by training a neural network with data from IMU sensors
- The **PyTorch** residual neural network reaches **92%** accuracy on Time-series human actions recognition task among 14 activities after training; published the result on Human Factors and Ergonomics Society as the third author

Flourish

Software Engineering Intern *May. 2018 - Aug. 2018*

- Worked with an agile team to develop a mobile app which introduces an entertaining way for personal finance
- Collaborated with design team to optimize and integrate the frame of Plaid API using **React Native and Figma**
- Implemented two in-app games using **JavaScript** to increase customer stickiness and validated with AB testing

DJI

Software Engineering Intern *May. 2017 - Aug. 2017*

- Organized a team of 8 to research, design, and assemble advanced robots (mechatronics and algorithm)
- Built automatic robots that collect and launch projectiles against other robots in an obstacle-filled battleground

Leadership & Campus Activities

Robomaster at Berkeley

Co-founder, President *Oct. 2018 – Present*

- Initiated and led a team of 15 that broke into ICRA Robomaster AI Challenge 2019 final round and won 2nd prize
- Implemented an object distance calculation algorithm for the stereo camera in C++

UC Berkeley College of Engineering

CS Tutor *Jan. 2019 - present*

- Taught weekly sections and hosted office hours for *Computer Vision (CS 194-26)* and *Data Structures (CS 61B)*