Jingpei LU

(858)7668161 | jil360@ucsd.edu | 9192 REGENTS RD APT F, LA JOLLA, CA 92037
jingpeilu.github.io

EDUCATION

University of California - San Diego *Sep 2018 - Dec 2019*
Master of Science in Intelligent System, Robotics and Control *La Jolla*

- GPA: 3.77 / 4.0
- Relevant Coursework: Computer Vision, Digital Image Processing

University of California - San Diego *Jun 2018*
Bachelor of Science in Electrical Engineering *La Jolla*

- Major GPA: 3.71 / 4.0
- Honors/Awards: Provost Honors, IEEE Quarterly Project Award
- Relevant Coursework: Pattern Recognition and Machine Learning, Linear and Nonlinear Optimization

RESEARCH EXPERIENCE

The Statistical Visual Computing Laboratory (SVCL) at UCSD *Jan 2018 - Aug 2018*
Undergraduate Researcher *La Jolla*

Deep Learning for Plankton Image Retrieval

- Developed a content-based image retrieval system for plankton images using a deep convolutional neural network (Resnet50) which assisted biological oceanographers in researching and labeling the plankton images
- Researched on different neural network models and fine-tuning process, which improved the precision of retrieval system by about 30%
- Accelerated the searching process by implementing approximate nearest neighbor algorithm and building the search trees beforehand
- Presented the final system at the Summer Research Conference and received positive feedbacks from faculties and scientists

PROJECT EXPERIENCE

Autonomous R/C Vehicle *Mar 2018 - Jun 2018*

- Built a remote control vehicle that can autonomously run on an outdoor scaled track
- Improved the vehicle by adding traffic signs recognition functionality and speeding up the video processing efficiency three times using the multi-threaded approach
- Accomplished the goal of self-steering and simulating city driving, and ranked the first on the team competition

(OpenCV, Neural Network, Raspberry Pi)

Drone Integration for RF Scanner Payload *Jan 2018 - Mar 2018*

- Integrated an RF scanning payload with a drone (DJI Matrice 100) to automate the processes of detecting wireless signal's strength in open area
- Developed a mobile app to record the signal strength data and generate the heatmap which can visualize the data better

(Java, C++, DJI onboard and mobile SDK, Github)

Movie Recommender System *Sep 2017 - Dec 2017*

- Utilized the movie rating data from the MovieLens dataset and preprocessed the data by categorizing and scaling the variables
- Built a three-layer neural network and trained it to predict people's preferences on movies
- Analyzed the data and created the graphs to visualize preferences of people in different groups, which contributed to further research in the industries for observing patterns to advertise in the better way

(Numpy, Pandas, Matplotlib)

PROFESSIONAL EXPERIENCE

Wangsu Science & Technology Co., Ltd. *Jul 2017 - Sep 2017*
Summer Internship - , Customer Technical Support *Xiamen*

- Assisted the technical support team in diagnosing and resolving the system issues and creating standard procedures for proper escalation of unresolved issues to the appropriate internal teams
- Evaluated and analyzed the clients' feedback, reported to the supervisor and made recommendations, which improved the efficiency in targeting on potential customers
- Managed the company's recruiting training program and evaluated the performance of new employees

MISCELLANEOUS

- **Skills:** Python (Tensorflow, Keras), Matlab, Java, C++
- **Languages:** English (Fluent), Mandarin Chinese (Native)
- **Activities:** IEEE at UC San Diego, Intramural Sports Competition (Soccer), Summer Research Internship Program
- **Professional Development:** Deep Learning Nanodegree Program (CNNs, RNNs, GANs, Reinforcement Learning)