Taoyuan Wang

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EXPERIENCE

Software Engineer in Appen
Apr 2019 – Present

Computer Vision Tools Team
Sunnyvale, CA (Shanghai til Jan 2020)

- Built local systems to support Chinese market (assist in setting up new branch office in China as first engineer)
- Led to design and develop annotation platforms for 3D model and pointcloud (frontend with React and Three.js, backend with Flask and Spring)
- Extended pointcloud cuboid annotation to semantics segmentation as side project then got accepted as a new product (got 20+ top customers in autonomous vehicle and robot industries)
- Researched on pointcloud object detection/tracking and used opensource projects to increase annotation efficiency
- Conducted sensor fusion experiments based on client device parameters (e.g. LiDAR/camera position, rotation, focal length, etc) with NumPy to project points from 3D to 2D domain
- Implemented event logger and worked with data scientists to analyze behavior of annotators for training process and tools improvement (Reduce annotation cost by 56%)

Software Engineer in Works Applications
Apr 2018 – Mar 2019

AI WORKS HUE Tech Lead Group
Shanghai, China

- Developed product frontend with Vue.js
- Developed product backend with Spring, Hibernate and JUnit

Research Assistant in Academia Sinica
Dec 2017 – Mar 2018

Natural Language Processing Lab
Taipei, Taiwan

- Researched on Chinese Short Text Conversation chatbot
- Implemented sequence to sequence models with PyTorch
- Maintained a large repository of post-comment pairs from Weibo datasets
- Used appropriateness scores of comments as reward for reinforcement learning

EDUCATION

Carnegie Mellon University
Remote

M.S. in Software Engineering
May 2020 – dropout

National Tsing Hua University
Hsinchu, Taiwan

B.S. and M.S. (Internet Lab) in Computer Science
Sep 2010 – Aug 2016

Nagoya University
Nagoya, Japan

Academic Exchange to Database Lab (Full Japanese immersion)
Oct 2014 – Jul 2015

Tsinghua University
Beijing, China

Development of Mobile User Sensing System with Android and Servlet/JSP
Aug 2012 – Sep 2012

PROJECTS

Watchdog | *Python*
Oct 2014 – Aug 2016

- Developed a Raspberry Pi remote-control webcam to monitor my pet when I'm far from home
- Designed web UI for controlling servo motors to change the view of webcam
- Auto-checked server status and restarted system if no response from device to minimize maintenance

Midnight Radio | *PHP*
Sep 2015 – Aug 2016

- Developed a platform to share music, lyrics, and pictures with friends
- Simulated radio-like live streaming only with synchronization logic

Boki | *Android*
Oct 2014 – Jul 2015

- Developed an accounting app with budget control, spend analysis, currency conversion for my studying in Japan

SKILLS

Languages: Python, JavaScript, Java, C/C++
Frameworks: Flask, React/Redux, Spring, JUnit, Jest, pytest
Developer Tools: Git, Docker, Jenkins, Jupyter Notebook, PyCharm, WebStorm, Intellij IDEA
Libraries: NumPy and WebGL using Three.js for 3D data visualization