Zhi Ji

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SUMMARY

Electrical Engineering student at Columbia University with extensive intern and research experiences for machine learning, deep learning and computer vision. Also have experiences of IoT development, database, web application design.

EDUCATION BACKGROUND

Columbia University New York, NY *(Expected) 09/2018 - 12/2019*

MS in Electrical Engineering,

Relevant coursework: Internet of Things; Reinforcement Learning; Deep Learning for Computer Vision, Natural Language Processing and Speech Recognition; Introduction to Database

University of California Berkeley Berkeley, CA *01/2017 - 12/2017*

Exchange Student in Electrical Engineering & Computer Science

Relevant coursework: Machine Learning and Data Analytics; Data Structure ; Digital Signal Processing

University of Electronic Science & Technology of China Chengdu, CN *09/2014 - 07/2018*

BS in Electronic Information Engineering Cumulative GPA: 3.8/4.0

Relevant coursework: Signal Processing; Pattern Recognition; Visual Digital Video Technology & Application

PROFESSIONAL EXPERIENCE

Institute of Automation, Chinese Academy of Sciences | *Research Assistant Beijing 04/2018 - 08/2018*

- Developed several machine learning and deep learning models for share price and future price prediction.
- Researched on the algorithm for detecting black product attack with imbalanced sample distribution and missing features.
- Developed several stock trading strategies with the help of the prediction of machine learning models.
- Designed and programmed the visualization for reinforcement learning algorithms.
- Published a paper at CSAE 2018.

RESEARCH EXPERIENCE

Berkeley Video and Image Processing lab | *Research Assistant University of California Berkeley 05/2017 - 12/2017*

- Developed a sensor-based sorghum height estimation algorithm by image processing techniques with Open CV.
- Implemented a tracking algorithm that recognize same sorghums from different images and keep tracking of stems.
- Participated in the training of a Fast RCNN model to crop the bounding boxes of stems of sorghum from images.
- Developed a width estimation algorithm by image processing techniques with MATLAB and Open CV.
- Published at Electronic Imaging 2018 : http://www-video.eecs.berkeley.edu/papers/jihui-jin/jihui-height-ei-2018.pdf.

PROJECT EXPERIENCE

Smart Watch *Columbia University 09/2018 - 10/2018*

- Program on Huzzah board that control the communication across sensors, board, screen, mobile apps and cloud.
- Implemented many functionalities including time, screen brightness adjustment according to the environment brightness, set alarm, accelerometer sensor, connect to useful APIs etc.
- Developed Android apps that whatever people speak to the mobile app, the app transmit the signal to cloud and run a speech recognition algorithm and the text finally shows up on the smart watch.

Qirkat (Alquerque) *University of California Berkeley 10/2017 - 11/2017*

- Programmed in Java and implemented GUI to play the ancient game of Qirkat The program incorporates an AI so that a single human player could play, although it could also provide options for completely manual play and for completely automated play.

PROFESSIONAL SKILLS

- Technical Skills: Python / Java / C++ / R / SQL / MATLAB/ HTML/ CSS / Tensorflow/ Keras/ Pandas/ Scikit-Learn/ Gym.
- Machine Learning: Deep Reinforcement Learning, Deep Learning, Computer Vision, Quantitative Analysis.
- System: Internet of Things, Database and Web Application Design, Software Engineering.

ACTIVITIES

- 2018 Las Vegas NAB show: Worked as an exhibitor to introduce products to customers and distributors.
- NBA hackathon: Developed a machine learning algorithm for predicting total viewers of NBA games.