Weilun(Alan) Shi

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EDUCATION

University of Michigan, Ann Arbor, MI **Apr 2018**
Master of Science in Electrical Computer Engineering Systems
GPA: 3.83/4.00

South China Agricultural University (SCAU), Guangzhou, China **Jun 2016**
Bachelor of Engineering in Electrical Engineering and Automation
GPA: 90.15/100

WORK EXPERIENCE

Facial Recognition Application, China Southern Airlines | *Deep Learning Engineer Intern* **May 2017 – Sep 2017**

- Implemented a face detection algorithm, automatically detecting and boxing all the face from multiple profile datasets.
- Coded and customized the well-known MTCNN model to address the specific problem in our working environment.
- Deployed multiple versions of our facial recognition FaceNet model using Tensorflow serving system while keeping training more refined model offline.
- Contributed to China South Airlines becoming the country's first airline company to use facial recognition technology at Nanyang Airport.

OSM Outsource Management System, China Southern Airlines | *Full Stack Engineer Intern* **Aug 2017 – Sep 2017**

- Communicated with multiple departments and analyzed the requirement of our management system and established the database model using PowerDesigner.
- Built the backend Api based on Java JPA framework, constructed frontend web using Javascript React and Mobx.
- Achieve numerous functions, such as authority management, auditing, attendance checking, work reporting and application assessment. Eliminating wastes by saving a lot of paperwork.

PROJECT EXPERIENCE

Automatic Jokes Grader, University of Michigan **Nov 2017 – Dec 2017**

- Created a dataset by collecting 20k jokes from Reddit Jokes Forum and labeled them based on upvote and comments.
- Tested and employed multiple classifier and pipelined two stages of classification to determine whether a given joke is popular or not.
- Advanced the algorithm by taking advantage of and customizing a TextCNN text classification deep learning approach. Achieved the current state-of-the-art.

Large Scaled CNN Surface Normal Prediction, University of Michigan **Mar 2017 – Apr 2017**

- Analyzed large training set data using a multiple stage multiple layers' convolution neural network with Python Tensorflow library.
- Connected multiple stages of convolution network to lower the cost and increased efficiency while training data. Successfully predicted surface normal given a single image with 0.65 mean angle error and ranked top 5 in the class.

Robust and Recoverable Database using Logging, University of Michigan **Mar 2017 – Apr 2017**

- Implemented an efficient steal/ no force database with C++, guaranteed robust using log record.
- Maintain ACID properties after crash by analyzed different types of log during analyzed, undo and redo phases.

Fault Tolerant Scalable Search Engine with Big Data, University of Michigan **Oct 2016 – Dec 2016**

- Implemented a multi-process, multi-threaded server that execute MapReduce jobs with Hadoop streaming interface.
- Pipelined multiple stages of MapReduce work to calculate the inverted index of each term on the web.
- Combing PageRank score and tf-idf score to build up a Wikipedia style search engine.

RESEARCH EXPERIENCE

International Scientific Research Project Flu Automation Quarantine, SCAU **Mar 2015 – Jun 2015**

- Coordinated the efforts of mechanical designers, software engineers, professor and chicken farmer.
- Designed and directed a series of experimental operations setting up the robotic car into the chickens and collect valid samples for the project.

SKILLS

C++, Python, JavaScript, Java, JPA, SSM-Framework, Linux(CentOS, Ubuntu), HTML, MATLAB, R, Redis, Map Reduce, SQL, React, Tensorflow, Tensorflow Serving, AutoCAD, VMware, Cuda, Git, Hadoop, JSON, JQuery, Prolog, Node.js, etc