Xiaohan(Shawn) Wu

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Education

- **New York University**   New York, USA
  Master of Science in Computer Engineering   *Aug. 2017 – Present(Expected May 2019)*
  Relevant Courses: Data Structure & Algorithms, Principles of Database System, Operating System, Intro to Java, Computer System & Architectures, Data center and Cloud Computing, Internet Architecture and Protocols

- **Tianjin University**   Tianjin, China
  Bachelor of Engineering in Measuring and Controlling Technology and Instruments   *Aug. 2013 – Jul. 2017*

Skills

- **Programming Languages**: Java, Python, C++, PHP, JavaScript, HTML, CSS

- **Software & Tools**: AJAX, AWS, BootStrap, Flask, Git, Linux, SQL, Node.js, OpenCV, React, TensorFlow

Work Experiences

- **Visualization and Data Analytic Laboratory, New York University**   Brooklyn, New York
  Software Engineer Intern   *Sept. 2017 - May 2018*
    - Avoided gradient vanishing by implementing **Convolution Neural Networks** (CNNs) and **Long Short-Term Memory**(LSTM) in pose estimation using **TensorFlow**, leading to 15% increment in average accuracy;
    - Reduced rendering time from 4 minutes to 3 seconds by designing a real-time data visualization website based on **OpenCV**, **React** and **Flask** framework in **Python** to render joints trajectories in videos;

- **Visual Computing Center, King Abdullah University of Science & Technology**   Saudi Arabia
  Virtual Reality Research Intern   *Feb. 2017 - Jun. 2017*
    - Increased the material utilization rate by 40% by modifying objects structures using CAD and improving 3D printing algorithms using **C++**;
    - Designed **Virtual Reality**(VR) toolkit in **Unity3D** for customizing VR controllers of various scenes by implementing Arduino electronics and 3D printing objects;

Projects

- **Full Stack Development – Jobster**   Group Project of Principle of Database
  A database-backed website which is similar to LinkedIn   *Jun. 2018*
    - Designed and decorated a web application with **HTML**, **CSS**, **JavaScript** and **BootStrap** framework;
    - Implemented **RESTful APIs** for website services and **AJAX** for data cleaning and transformation;
    - Connected and modified relational database using **PHP** and deployed on **AWS Elastic Beanstalk**;
    - Implemented a relational database using **MySQL** to storage user data and job information;

- **Python Web Application Development**   Personal Web Development Project
  Real-time video data visualization application   *Jan. 2018*
    - Captured and rendered joints trajectories using **OpenCV** and **Python** for each frame of input videos ;
    - Designed a website based on **Flask** framework and implemented **AJAX** to support data transformation;
    - Loaded video data and **JSON** files from **MongoDB** using PyMongo library in **Python**;

- **3-Stage Pipeline MIPS with Branch Predictor**   Personal Simulation Project
  Computer architecture simulation project   *Jun. 2017*
    - Simulated an instruction-level single cycle MIPS processor and multilevel LRU cache;
    - Programmed five stages of instruction execution in **C++** to execute R, I, J type instructions;
    - Implemented write back, write through, write allocate policies for cache simulating;