

Tiancheng (Owen) Ying

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EDUCATION

M.S. CS - Virginia Tech, Blacksburg, VA, US. 2017 - 2019. GPA: 3.81/4.0

B.S. CS - Beijing Institute of Technology, Beijing, China. 2013 – 2017 GPA: 3.80/4.0

Scholarship Exchange. CS – Leiden University, Leiden, Netherlands. 2017.2 – 2017.5

PROJECTS

JavaEE: Candy Factory Web App, Mobile/Cloud Software Engineering Lab, VT, 2018.7- now
Created entire app including front-end CandyFactory Game and back-end system. Front-end game has 5 levels with intuitive animations and interactions to teach kids fraction step by step. Back-end supports teachers to create accounts/classes/students and also collects game performance data from front-end and generates performance report to provide to corresponding teachers. Applied bit optimization, achieved 5 times smaller space, 3 times faster front-back communication and O(1) time complexity. (HTML, CSS, JQuery, JavaEE, JSF, PrimeFaces, JSON, MySQL, PBKDF2 SHA-1, Bit Manipulation)

JavaEE: Tracking Voter Turnout Web App, Cloud Software Development Project, VT, 2017.9-2017.12
Make use of voter information dataset on www.census.gov to visualize the data and offer related information about voter turnout. The app supports accounts creation, email verification, 2-factor login, cookies to remember users, encrypted password storage, RSS news feeding, recommending related YouTube videos, data filtering and visualization, exporting result data functionalities. (RSS, cookies, AES encryption, HTML, CSS, JavaEE, JSF, PrimeFaces, JSON, MySQL)

Android: DJI Drone Developing, Network Architecture, System & Security Lab, BIT, 2014.7-2014.9
Make use of Android App + DJI Onboard SDK to achieve drone ultra long-range remote control. Achieved high frequency communication, 3G/4G remote control, sending & receiving flight data. (Android, DJI Onboard SDK, Raspberry Pie, Java, Linux Server, Socket, Client-Server Architecture)

Android: Remote Slides Controller, Java Course Project, BIT, 2015.1-2015.4
Achieved IP free connection, remote controller, remote touchpad with mapping algorithm, sensor laser pen functionalities. Make use of Java Robot class to manipulate computers and Android as controllers. (Java Robot, Java awt, Android, Socket, IP free, Mapping Algorithm)

Deep Learning: Change Detection, Bachelor Degree Project & Thesis, BIT, 2016.2-2017.5
Based on changedetection.net dataset to achieve accurate video change detection, improved Siamese neural network with 2 fully connected layers. Beats 80% traditional methods on changedetection.net. (Tensorflow, Python, Siamese Neural Network, CNN, Image Processing, Linux, Offline detection)

INTERNSHIP & JOB

Software Engineer at the MathWorks, 2019.8-now

Graduate Teaching Assistant, CS3754/CS5704, Full Funding, 2018.1-2019.5

Linux: Lightweight UI Chat App, Neusoft Tech Co.Ltd, 2014.6-2014-7

Developed a lightweight Linux chatting app, which achieved account creation, one-one chat, group chat, file transmission in LAN. It has few dependencies, use notepad as backend database, so every Linux computer can be server as well as client and super easy to deploy. (Linux C, GTK, Socket, pthread)

JavaWeb: Supermarket Discount Recommend App, Neusoft Tech Co.Ltd, 2015.6-2015-7

Includes client, supermarket and admin. Recommend best discounts nearby posted by supermarkets. Achieved account creation, intelligent recommendation, commodity uploading functionalities. (JSP, MyEclipse, MySQL, HTML, CSS, Javascript)