Seunghwan (Sean) Cha

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EDUCATION

Hong Kong University of Science and Technology (HKUST)

Kowloon, Hong Kong

Email: seunghwan.sean.cha@gmail.com

BEng in Computer Engineering; GPA: 3.5/4.0

June, 2019

• Relavant Coursework: Embedded System, Internet Computing, OOP & Data Structure, Unix & Script Programming, Design & Analysis of Algorithm, Principles of OS, High Performance Computing

Vanderbilt University

Nashville, TN

Semester Exchange; GPA: 3.83/4.0

Spring, 2018

WORK EXPERIENCE

AIVAS Lab, Vanderbilt University

Nashville, TN

Research Assistant

Jan 2018 - July 2018

- Toybox: Created video recording dataset for small sample learning and hand-object interaction with categories from early-learned nouns of infants. Played significant role in data analysis and using dataset on DCNN. Co-authored paper for VMC Workshop from CVPR 2018. Project Link: aivaslab.github.io/toybox
- **Block Design**: Used OpenCV and computer vision techniques to analyze Block Design Task (morphological and color based analysis) and to gain insights from Human Cognitive Behaviors
- Tech Stack: TensorFlow for using DCNN, OpenCV & FFmpeg for Computer Vision Task, and Scikit-learn & Seaborn for data visualization

HKUST ECE Department

Kowloon, Hong Kong

Sep 2017 - Dec 2018

Part-time Student Programmer

- o Front-end: Developed front-end of circuit simulation website, www.i-mos.org, using Vue.js and Snap.svg
- Prodocution Deployment: Identified bugs and UI improvement of websites for production deployment.

Versitech Limited

Cyberport, Hong Kong

June 2017 - Aug 2017

Software Engineering Summer Intern

- Data Query: Effectively used PHP and SQL Server to query data to create a web reporting system. Utilized existing schema and constructed new schemas with raw data imported from MS Access/Excel.
- **CMS**: Developed a CMS that contains all CRUD features to handle multiple databases through JQuery DataTable. Developed efficient system to minimize human errors from data entry work and to automate the entry process.
- Tech Stack: PHP and SQL Server for back-end and DB handling. Bootstrap and JQuery plugins for front-end development.

Award

Champion of CodeIT Suisse Coding Challenge

September, 2017

Credit Suisse, APAC Region

- Highest score in APAC: Won 1st place by solving algorithm questions such as DP, Graph, and AI.
- o Tech Stack: Used Node.js and Express to set up pipeline and HTTP request to send answers through Heroku

Dean's List Spring 2017

School of Engineering, HKUST

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PROJECTS

- Meteorology Prediction: Developed a system for weather prediction in Greater China Region using ML techniques such as Encoder-Decoder and CNN. Utilized weather dataset from SZMB & HKO to participate in 2018 ICDM Data Challenge
- Exchange Matching System: Improved decision making of choosing different host institutions offered by HKUST Exchange Program for students by developing exchange matching website for COMP 2021 course.

SKILLS/LANGUAGE

- Programming Languages: Python, Java, C++, Javascript, SQL
- Framework/Library: OpenCV, TensorFlow, Scikit-learn, Node.js
- Languages: Korean, English (TOEFL 115), Mandarin (HSK Level 5)