Zhirong LI

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EDUCATION

Northwestern University Sept. 2019 – Dec. 2020(Expected)
M.S. in Computer Science

Chinese University of Hong Kong Sept. 2016 – July 2019
B.Sc. in Computer Science, First Class Honor
- Cumulative GPA: 3.587/4.000 Major GPA: 3.712/4.000

Sun Yat-Sen University Aug. 2014 – July 2016
Major in Electronic Information Science and Technology

SKILLS

Programming languages	C/C++, Java, Python, HTML5, SQL, JavaScript, Windows Batch Script, LaTeX
Frameworks and Tools	Hadoop, MySQL, Microsoft Azure, MS XP, Microsoft Visual Studio

EXPERIENCE

ASM Pacific Technology Limited Hong Kong, *Software Engineer Intern* Sept. 2017 – Apr. 2018
C++, JavaScript, Windows Batch Script, Microsoft Visual Studio C++ *Hong Kong*
- Constructed features to control capturing images from cameras and to test 6 characteristics of machines for vision software, which controls the process of the Automatic Die Bonding System; collaborated closely with mechanical engineers to test features.
- Designed and implemented score functions of learning and searching images during die bonding process; processed and completed change requests (bug fixes, usability/integration tests).
- Completed a self-directed project involving height calibration of die, including camera hardware setup and software testing. Analyzed results and increased accuracy by 30% while adjusting parameters.

Chinese University of Hong Kong, *Research Assistant* Sept. 2018 – May 2019
C++, Similarity Search, Proximity Graph *Hong Kong*
- Analyzed over 10 works of literature on different graph models in maximum inner product search including KNN-Graph, NS-graph, NN-descent, HNSW, and improved connectivity by 30% via segregation and reconstruction.
- Improved connectivity of proximity graphs by separating nodes into different levels according to norm lengths and speeding up the search process by 40% utilizing product quantization, multi-inverted search and Cosine-proximity graph.

PROJECTS

File Deduplication in Cloud Storage Sept. – Dec. 2018
- Implemented a storage application in **Java** with deduplication, based on Rabin fingerprinting, resulting in 30% less space with over 1GB file data. Operations include uploading using chunking, downloading and deletion.
- Performed in two types of cloud storage backend: local storage and **Microsoft Azure** storage without duplication.

Online Recipe Application Jan. – Apr. 2017
- Collaborated with a team of designer, back-end engineers and testers to build a web application with over 1000 recipe, enabling users to find food recipe, plan meals and share cook experience.
- Developed web client and servers that send requests and process requests; developed front-end in **Bootstrap, HTML5, JavaScript** and **CSS**; collaborated closely with team members who are responsible for back-end development.

Hack the Tech News World, Google Girl Hackathon Season III Mar. – Apr. 2017
- Classified millions of hacker news data in **Python**; designed Android mobile application to display catalog online in multiple visual representation formats.
- Trained rankings of news using regression models to predict rankings of upcoming news in the future to give information to editors whether the news would be popular.

People's Happiness Detection Jan. – Apr. 2017
- Predicted people's happiness based on the characteristics of people's lives, such as gender, income, household status, party, etc.
- Trained thousands of data with hundreds of attributes and performed prediction by applying data preprocessing technology including missing data processing and outlier processing; applied train classifiers in **Scikit-Learn** in **Python**, such as Logistic Regression, Naïve Bayes, Support vector machines(SVMs) and Random Forest.

HONORS

Dean's List of Chinese University of Hong Kong 2018-2019
ELITE Stream Student Scholarship, CUHK 2018-19