

Zhanhao Chen | Resume

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Summary

Participated in several projects involving **web development, mobile development, data mining and open-source software development**. Proficient in **software engineering, operating systems and programming algorithms**. Applying for software engineer position.

Education

Lehigh University

M.S. in Computer Science, *Current GPA: 4.0/4.0*

*Bethlehem, Pennsylvania
Sept. 2016 – Jun. 2018 (Expected)*

Nankai University

B.E. in Software Engineering, B.E. in Financial Engineering, *GPA: 3.6/4.0*

*Tianjin, China
Sept. 2012 – Jun. 2016*

- Got **University Scholarships** (15%) for three times (2.5K USD in total).

Project Experience

Deterministic Browser Project

Research Assistant, SEC Lab (Prof. Yinzhi Cao), Lehigh University

*Pennsylvania, USA
Oct. 2016 – Present*

- Built the **first execution time deterministic browser**, DeterFox (**deterfox.com**), based on **Firefox open-source project** to defend against timing channel attacks. The project paper has been accepted by **The ACM Conference on Computer and Communications Security, 2017**.
- Implementation: Modified browser's **JavaScript engine and concurrency model** in C++; Rescheduled browser's tasks and data synchronization to retain original functions; Implemented several time channel attacks for evaluation.

Indoor Navigation System

Research Assistant, Nankai University

*Tianjin, China
Oct. 2015 – Jun. 2016*

- Developed a Bluetooth (**iBeacon**) based navigation system including a map import tool, an **Android App** and its back-end (**J2EE server and MySQL database**). Managed team of 6 and budget of **3K USD** (funded by **the China National University Student Innovation Program**)
- Implementation: Imported geographical data from real indoor parking lot map; Designed a database for map and user data; Provided indoor navigation, parking lot marking and position sharing services; Displayed 3D map on Android app with **OpneGL**.

Fine-grain Leaf Recognition Project

Research Assistant, Nankai University

*Tianjin, China
Jun. 2014 – Mar. 2016*

- Extracted and evaluated several graphic texture features for leaf recognition based on the plant database from **the Intelligent Computing Lab of Chinese Academy of Science**. Achieved **84% accuracy** for recognizing **102** common plant species. Managed team of 4 and budget of **3K USD** (funded by **the China National University Student Innovation Program**)
- Implementation: Applied **OpenCV** for graphic processing and data mining. Migrated the research result (feature extraction and classification model) to an Android application with **OpenCV4Android**; Developed the backend with **MVC (Model-View-Controller) framework** and **MySQL database** to support information retrieval.

Internship

Java Development Internship

Java Developer, ChinaSoft International

*Tianjin, China
Jun. 2014 – Aug. 2014*

- Contributed to develop a **shopping website** and its **Android application** which provided an online second-hand market for college students.
- Implementation: Being in charge of front-end (Web and Android app) design and implementation with JavaScript; Contributed to database design and Spring MVC architecture coding.

Publication

Deterministic Browser

Yinzhi Cao, **Zhanhao Chen**, Song Li and Shujiang Wu

In the Proceedings of The ACM Conference on Computer and Communications Security (CCS), 2017 (18%)

Feature Evaluation in Fine-gain of Leaf

Zhanhao Chen, Shan Xu, Yixiong Zou, Hualong Zhang, Zhu Zhang, Yue Li, Wei Wang

In the Proceedings of The International Conference on Machinery, Materials and Computing Technology, 2016

Honors & Awards

Mathematical Contest In Modeling Meritorious Winner

2015, USA

National Science & Technology Competition The Second Award

2015, China

Skills

Programming Language : (Proficient) Java, Python; (Familiar) C++, C, JavaScript, HTML/CSS, Matlab

Frameworks : Tomcat, Spring MVC, J2EE, MySQL, Elasticsearch, OpenCV, OpenGL, scikit-learn, Scrapy