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Chenyu HUANG

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Objective

Expected to graduate in December 2017, seeking for a **full time software development** role.

Education

University of California, San Diego (UCSD), La Jolla, CA — *Sep. 2016 - Dec. 2017 (Expected)*
Department of Computer Science and Engineering (CSE)
Master of Science in Computer Science
Major GPA: **3.72/4.0**

Nanyang Technological University (NTU), Singapore, Republic of Singapore — *Aug. 2012 - Jun. 2016*
Bachelor of Engineering in Electrical & Electronic Engineering
Major GPA: **4.62/5.0 , 1st Class Honors**

Computer Skills

Java *(OOP)*, ***Javascript, HTML, CSS*** *(Web server and front-end development)*, ***C*** *(System-level programming)*, ***Matlab*** *(Scientific computing)*, ***PHP, Python*** *(Data science computation)*, ***SQL*** *(Database query language)*, ***LaTeX*** *(Scientific documentation)*, ***Git*** *(Version control, collaboration)*, ***Bash*** *(Unix command interpreter)*
Platforms & Frameworks: *Android Studio, React.js, Node.js, Express, Bootstrap, jQuery, D3.js*

Work Experience

Software Engineering Intern, **Mitek System, Inc**, *San Diego, CA* — *Jun. 2017 - Sep. 2017*
- Worked in an **Agile** and **Test Driven** environment developing **Android** SDKs in **Java**
- Developed and shipped MobileDocs SDK for high resolution document capture for **Android** devices
- Optimized existing MiSnap SDK reducing the SDK size by **over 30%** via dynamic asset generation
- Automated **Unit Test** using **JUnit** and **Roboelectric**, continuous build and integration with **Jenkins**

Research Assistant, **SeeLab UCSD**, *San Diego, CA* — *Jun. 2017 - Present*
- Worked with PhD candidates developing high performance, low power **classifiers**
- Implemented high performance **Hierarchical Hyper Vector** based voice **classifier**
- Achieved the same accuracy as conventional **Neural Network**, but with **over 50%** saving in energy

Software Engineering Intern, **Rolls-Royce Corporation**, *Republic of Singapore* — *Jan. 2015 - May. 2015*
- Developed data driven web applications using **D3.js** to visualize engine service data
- Developed in **Python** to predict engine failure types using **Bags of words** model
- Responsive web development using **Bootstrap, jQuery**

Academic Projects

Column-based Scalable Database — *May - Jun 2017*
UCSD class projects for Storage System
- Designed and implemented an **NoSQL column-based** database system in **Java**
- Implemented the database with **Memtable** to store recent data and **SSTable** to store **long-tail** data
- Implemented a **Bloom Filter** to efficiently determine membership status of any data entry

Branch Predictor — *May. 2017*
UCSD class projects for Computer Architecture
- Implemented the **gshare** and **tournment** branch predictors in **C++**
- Designed a custom predictor in **C++** by combining **gshare** and a **2-level local** predictor
- Custom predictor achieves **97%** of accuracy on given test data, a **7%** improvements over *gshare*

Web Mining and Recommender Systems — *Jan. 2017 - Mar. 2017*
UCSD class projects for Web Mining and Recommender Systems
- Applied the techniques of **Regression, Classification** to build a rating predictor system in **Python**
- Implemented a **Latent Factor Model** in **Python** to predict user ratings of their Amazon purchases
- Trained the system using 200,000 entries of anonymous review data from Amazon
- Achieved an mean square error of 12.6 for rating prediction on a scale of 100

Personal Projects

Android Development — *Jul. 2017*
Dark World Game for Android
- Developed a puzzle game based on the **Model-View-Presenter** development paradigm
- Allowed player to configure the puzzle map configurations through slider bars
- Randomly generates puzzle maps based on player's configuration
- Implemented fully gesture based game controls

GRE Vocabulary Builder for Android
- Developed an Android app to help students prepare for GRE verbal tests
- Automatically generates multiple choice questions to test student's vocabulary
- Connects to Android's **text-to-speech API** to provide pronunciations for all words
- Connects to **SQLite** database to store user performance metric and support predictive search
- Connects to **Restful API** to provide word definition for words not in local database

Robotics Controller for Android
- Developed an **Android** app to remotely control a robot via **Bluetooth**
- Utilized internet protocol to wirelessly stream live video (30fps) from the robot's camera