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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), San Diego, CA

Sep. 2016 - Dec. 2017 (Expected)

Master of Science in Computer Science, GPA: 3.70/4.0

Nanyang Technological University (NTU), Singapore

Aug. 2012 - Jun. 2016

Bachelor of Engineering in Electrical & Electronic Engineering, GPA: 4.62/5.0, 1st class honors

Work Experience Software Engineer (Part Time), Mitek System, Inc, San Diego, CA

Sep. 2017 - Present

- Worked in an Agile and Test Driven environment developing Android SDKs in Java
- Assisted in QA process by automating Android UI testing with Expresso and Robolectric

Software Engineering Intern, Mitek System, Inc, San Diego, CA

Jun. 2017 - Sep. 2017

- Developed and shipped MobileDocs SDK for high resolution document capture for *Android* devices
- Optimized MiSnap *Android* SDK reducing the SDK size by *over 30*% via dynamic asset generation
- Automated *unit tests* using *JUnit* and *Robolectric*, continuous build and integration with *Jenkins*

Teaching Assistant, UCSD, San Diego, CA

Fall. 2017

• TAed for undergraduate course *Computer Networks*

Research Assistant, SeeLab UCSD, San Diego, CA

Jun. 2017 - Aug. 2017

- Worked with PhD candidates developing high performance, low power *classifiers* in *Matlab*
- Achieved the same accuracy as conventional *Neural Network*, but with *over* 50% saving in energy

Software Engineering Intern, Rolls-Royce Corporation, Singapore

Jan. 2015 - May. 2015

- Developed data driven web applications using *D3.js* to visualize engine service data
- Scripted in *Python* to predict engine failure types using *Bags of words* model

Academic **Projects**

Column-based Scalable Database

May - Jun 2017

- 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

Custom Branch Predictor

May. 2017

- 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

- 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
- Achieved an mean square error of 12.6 for rating prediction on a scale of 100

Computer Vision

Sep. 2016 - Dec. 2016

- Implemented image formation of *perspective camera model* with different camera parameters
- Implemented a face recognition algorithm based on *Eigenfaces and Principle Component Analysis*.
- Implemented the *Lucas-Kanade algorithm* to estimate optical flow between image frames in *Matlab*

Probabilistic Learning

Sep. 2016 - Nov. 2016

- Implemented a set of learning algorithms in *Java* and *Matlab*, including *maximum likelihood*, *EM*
- Implemented multiple Markov language models, e.g unigram, bigram and mixture models in Java
- Implemented a Markov decision model for a puzzle solving agent using value and policy iteration

Online Movie Ticket Reservation System

Aug. 2015 - Nov. 2015

- Developed a movie ticket booking system supporting seat-picking, synopsis and user rating.
- Implemented the backend with MySql and PHP to update and retrieve information from database
- Designed and implemented a responsive user interface using HTML, CSS and JavaScript

Personal **Projects**

Android Development Dark World Game for Android

Iul. 2017

- Developed a puzzle game based on the *Model-View-Presenter* development paradigm
- Dynamically generates puzzle maps based on player's configuration
- Implemented fully *gesture based* with *buttonless* game controls

GRE Vocabulary Builder for Android

- Developed an Android app to help students prepare for GRE verbal tests
- Designed a *relational SQLite* database to store user performance data and support predictive search
- Connects to *Restful API* to provide word definition for words not in local database

Computer Skills

Java, Python, Matlab, C++, SQL, HTML, JavaScript, CSS, PHP, Latex