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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**

University of California, Berkeley (UCB), Berkeley, CA — *May. 2013 - Jul 2013*
Undergraduate summer school program

Computer Skills

Computer Languages & tools: ***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*
- Developed Mobile Identity Capture SDK for Android, iOS and web

Research Assistant, **SeeLab UCSD**, *San Diego, CA* — *Jun. 2017 - Present*
- Worked with PhD candidates developing high speed, low power classifiers for text and image data

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

Projects

Column-based Scalable Database — *May - Jun 2017*
UCSD class projects for Storage System
- Designed and implemented a 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, etc* 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

Android Development — *Jan. 2017 - Apr. 2017*
GRE Vocabulary Builder
- Building 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

Robotics Development — *Jan. 2017 - Mar. 2017*
UCSD class projects for Robotics
- Assembled and programmed a TurtleBot and a camera controlled by 2 Raspberry Pi's
- Developed an Android app to remotely control the TurtleBot's movement via Bluetooth
- Utilized internet protocol to wirelessly stream live video (30fps) from TurtleBot to Android device

Probabilistic Learning — *Sep. 2016 - Nov. 2016*
UCSD class projects for Probabilistic Reasoning and Artificial Intelligence
- Implemented a set of learning algorithms in *Java* and *Matlab*, including *maximum likelihood, EM, etc*
- Implemented multiple *Markov language models*, e.g *unigram, bigram and mixture models* in *Java*.
- Implemented the *Markov decision model* for a puzzle solving agent using value and policy iteration.