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Chenyu HUANG

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Objective Seeking for a **software development internship** role for the summer of 2017.

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: **3.90/4.0**

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

Work Experience

Software Engineering Intern, **Rolls-Royce Corporation**, *Republic of Singapore* — *Jan. 2015 - May 2015*
- Developed *D3.js* web applications to visualize engine service data by engine type, defect category.
- Designed and implemented user interfaces for data interpretation web applications
- Used *Bootstrap* and *Media Query* to build responsive web applications.

Projects

Web Mining and Recommender Systems — *Jan. 2017 - Present*
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 error of 1.03 for rating prediction (rating based on a 5-star system)

Android Development — *Jan. 2017 - Present*
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

Computer Vision — *Sep. 2016 - Dec. 2016*
UCSD class projects for Computer Vision
- Implemented image formation under the *Perspective Camera Model* with different camera parameters.
- Implemented a recognition algorithm based on Eigenfaces and Principle Component Analysis
- Implemented the *Lucas-Kanade algorithm* to estimate optical flow between image frames.

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.

Online Movie Ticket Reservation System — *Aug. 2015 - Nov. 2015*
NTU class project for Web Application Design
- Implemented a ticket reservation web application supporting seat-picking, synopsis and user rating.
- Implemented the backend using *MySql* and *PHP* to update and retrieve information from database.
- Designed user interface using *HTML, CSS* and *JavaScript*.

Autonomous Fleet Simulation in Airports — *Aug. 2015 - May 2016*
NTU Final Year Project
- Developed in *Java* to implement a cycle of ground vehicle operation after the landing of an aircraft.
- Developed a true-to-scale map of Singapore Changi Airport in *PTV Vissim* for testing.
- Applied *Java* code through Microsoft COM interface to PTV Vissim to visualize the simulation.

Standardized Language Proficiency Tests
- TOEFL iBT (111/120), Reading 30/30, Listening 30/30, Speaking 26/30, Writing 25/30.
- GRE General (331/340), Verbal Reasoning 161/170 (88%), Quantitative Reasoning 170/170 (97%).
- UCSD English Language Certification for Teaching (3.0/4.0) *Pass*.
- Mandarin: *native*, French: *elementary*