

# Zhengyang Zuo

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| <b>OBJECTIVE</b>           | To obtain a summer internship in software engineering & development  |               |
| <b>EDUCATION</b>           | <i>Candidate for Master of Science</i> , Information Networking<br>Carnegie Mellon University, Pittsburgh, PA<br>Cumulative GPA: 3.71/4.33   | December 2015 |
|                            | <i>Bachelor of Engineering</i> , Electronic Engineering<br>Tsinghua University, Beijing, China<br>Overall GPA: 87.4/100.0  | July 2014     |
| <b>RELEVANT COURSES</b>    | <i>Summer &amp; Fall 2014</i> : Introduction to Computer Systems, Search Engines, Fundamentals of Embedded Systems, Packet Switching and Computer Networks   |               |
|                            | <i>Spring 2015</i> : Distributed Systems, Machine Learning, Mobile and Pervasive Computing Services, Applied Information Assurance   |               |
| <b>SKILLS</b>              | <i>Languages</i> : <ul style="list-style-type: none"><li>• Most experienced with Java</li><li>• Some experience with C, C++ and Python</li></ul><br><i>Software &amp; Systems</i> : MATLAB, L <sup>A</sup> T <sub>E</sub> X, Linux (Ubuntu), OS X  |               |
| <b>COURSE PROJECTS</b>     | <i>QryEval Search Engine</i> , Search Engines  | Fall 2014     |
|                            | <ul style="list-style-type: none"><li>• Built a simple search engine based on ClueWeb09 dataset and Lucene indexes</li><li>• Implemented Boolean, BM25 and Indri retrieval algorithms</li><li>• Implemented pseudo relevance feedback</li><li>• Introduced features and tested the Learning to Rank algorithm</li><li>• Coded with Java</li></ul>  |               |
|                            | <i>Gravel OS Kernel</i> , Fundamentals of Embedded Systems   | Fall 2014     |
|                            | <ul style="list-style-type: none"><li>• Built a simple embedded operating system kernel running on QEMU emulator</li><li>• Wrote new syscalls for <i>read</i>, <i>write</i>, <i>exit</i>, <i>time</i> and <i>sleep</i> functions</li><li>• Implemented new SWI handlers, IRQ handler and timer driver</li><li>• Introduced context switching and concurrency control using mutexes</li></ul> |               |
| <b>RESEARCH EXPERIENCE</b> | <i>Research Assistant</i><br>Speech and Audio Technology Lab, Tsinghua University, Beijing, China  | Spring 2014   |
|                            | <ul style="list-style-type: none"><li>• Implemented a method to extract semantic structures semi-automatically based on the information queries in the unannotated ATIS-3 corpus</li><li>• Implemented unsupervised agglomerative clustering. The clustering process was divided into spatial clustering and temporal clustering</li><li>• Coded with Python</li></ul>                       |               |
|                            | <i>Research Assistant</i><br>Department of ECE, North Carolina State University, Raleigh, NC   | Summer 2013   |
|                            | <ul style="list-style-type: none"><li>• Built a cognitive radio networks (CRN) simulation framework on PHY/MAC layers</li><li>• Used MATLAB Simulink to build the simulation framework and process the simulation results</li></ul>  |               |