Yan Xu

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Available: **Jan. 2018 — Aug. 2018**

Skills

- **Programming Languages:** (*proficient*) Java; (*familiar*) C/C++, Racket, Javascript, Typescript, Matlab
- **Web Development:** HTML/CSS, Bootstrap, jQuery, Angular, Node.js, Express, Mongoose
- **Database:** SQL, SQLite, SQL Server, JDBC, JSON, MongoDB, MapReduce, Spark, AWS
- **Tools:** Git, IntelliJ, Maven, WebStorm, Sublime Text, Vim

Education

Northeastern University, Seattle, WA — *Sept. 2016 - Dec. 2018 (expected)*
Master of Science in Computer Science, GPA 3.83

University of Washington, Seattle, WA — *Sept. 2014 - June 2016*
Master of Science in Chemistry, GPA 3.54

China Pharmaceutical University, Nanjing, China — *Sept. 2006 - June 2010*
Bachelor of Engineering in Pharmaceutical Engineering, GPA 3.3

Relevant Coursework

- Functional Programming
- Object Oriented Design and Analysis
- System Programming
- Discrete and Data Structures
- Algorithm
- Computer System
- Intro to Database
- Web Development
- Mathematical Modeling

Projects

AlgoFun - An algorithm portal for geeks(MEAN Stack Web) — *May 2017 - Sept. 2017*

- Constructed a fully featured blogging web app for people to share and discuss cool topics and ideas of algorithms
- Designed and implemented the interactive front-end UI utilizing Angular, Bootstrap, HTML, and CSS
- Created the RESTful API web server with Node.js, Express and persisted data in a MongoDB database
- Applied PassportJS and JWT for user authentication

Markdown Document Processor(Java) — *Feb. 2017 - Apr. 2017*

- Developed a markdown document processor that handles headers, numbering of headers as well as lists
- Generated user-friendly command line interface to process a series of documents
- Performed unit testing applying JUnit framework to ensure 100% functionality

File Search Engine(C/C++) — *Jan. 2017 - June 2017*

- Developed a file search engine, searching files which contain all of the words in the query
- Implemented linked-list, hash-tables, inverted index, and index files for efficient query processing
- Built a multithreaded web server front-end to the query processor using POSIX Socket API and Pthreads

Percolation System(Java) — *June 2016 - Oct. 2016*

- Designed a computational model for percolation system utilizing weighted union-find algorithm
- Estimated the percolation threshold via Monte Carlo simulation

Experience

Research Assistant, *Department of Chemistry,* University of Washington — *Oct. 2015 - June 2016*

- Programmed a 3-D scanning interface for fast home-made laser scanning microscope in Matlab

Team Leader, *Mathematical Modeling Contest Team,* China Pharmaceutical University — *June 2007 - Oct. 2010*

- Led a 3-member team, created a “Mathematical Modeling for Chinese Higher Education Tuition Standard” and won First Prize in 2008 China Undergraduate Mathematical Contest in Modeling(Jiangsu Contest District)
- Instructed 30 team members in how to effectively utilizing programming tools to solve math models