Qiang Zhang
3333 North Charles Street
Baltimore, Maryland 21218
(667) 212-6099

February 22, 2018

Recruitment Department
blend

Dear Recruitment Officer,

I am writing to apply for the job opening **Software Engineer** as posted on blend.com/careers/opening.
I think I am a strong candidate for this job position given my background.

Job Requirements	My Qualifications
Excellent coding, problem solving, and debugging skills	I finished OS Pintos project largely all by myself. Code highly commented by the grading TA. Intense debugging was involved. Have written nearly 10K lines of Java.
Deep understanding of computer science fundamentals (B.S./M.S./Ph.D. in Computer Science preferred)	I am getting my Master's of Science in Engineering in Computer Science degree soon. I have taken most fundamental courses as listed in the resume.
Excellent written and verbal communication skills	In the second project **Multi Diff**, aside from pair programming on the algorithmic part, I am almost solely responsible for the 15-page long write-up.
Perfectionist coding tendencies	Implemented a **HMM EM Tagger** very compactly with almost no clutter at all. I comment all my codes very thoroughly.
Experience with JavaScript, AngularJS, Node.js, Go, and Python	I took an exclusively Go course, implemented **Padding Oracle Attack Demo** project with Go. I am taking Machine Learning right now with intensive Python coding.
Web app development experience	My **Survival Maps** project results from a fully-fleshed web application development process.

I look forward to get in touch and I am flexible regarding time and place. My phone number is (667) 212-6099 and feel free to contact me for anything more you need to know.

Sincerely yours,

Qiang Zhang

QIANG ZHANG

3333 North Charles Street, Baltimore, MD 21218 ◇ (667) 212-6099 ◇ vegito2002@gmail.com

github.com/vegito2002 www.linkedin.com/in/qiang-zhang-855615117

Education

Johns Hopkins University   **Baltimore, MD**
Master of Science in Engineering (M.S.E.) in Computer Science *GPA: 3.74/4.00*   Sept. 2016 - May 2018

Southeast University   **Nanjing, China**
B.E. in Measuring Control Technology & Instruments *GPA: 3.1/4.0*   Aug. 2007 - Jun. 2011

Experience

Nanjing Institute of Measurement And Testing Technology   2012 - 2014
Calibrating Engineer   *Nanjing, China*
· Legally binding calibration and certification for over 8000 pieces of academic or industrial instruments.
· Automated workflow for the department resulting in significant productivity gain, and won Anual Best 10 Employee (out of 200+) of year 2013, an unprecedented achievement for a second year.

Lab of Dr. Xu Li of Southeast University   2012 - 2013
Part-time Research Assistant   *Nanjing, China*
· Made recognized contribution to project: Truck & Train Motile Property Testing System.

Project Highlights github.com/vegito2002

Survival Maps   Team: Guoye Zhang, **Qiang Zhang**, Neha Kulkarni, Channing Kimble-Brown, Jeana Yee
Bootstrap JavaSpark TravisCI Maven Heroku iOS sql2o JUnit SQLite MVC MapQuest RESTful Swift   *2016, Baltimore, MD*
· Large-scale course project of OOSE where we, out of real-life need, built a navigation app that cares about security no less than speed, during a fully fleshed multi-iteration life-cycle: requirement analysis, design, implementation, testing and deployment.
· Innovative features: crime heatmap, routing security preference, sensitivity to crime threat of different time of a day etc.
· Solely responsible for UML design; significant participation in back-end server design and implementation; primarily responsible for backend data processing and data source updating component.
· Designed a recursive algorithm to integrate inconsistent traffic data and crime data from different sources.

Multi Diff   Team: Guoye Zhang, **Qiang Zhang**
diff Algorithm HTML MinHash Maven ZIMPL Java   *2017, Baltimore, MD*
· We re-assess the legacy utility `diff` and augment it with domain-specific new feature and algorithmic enhancement.
· Developed new algorithm `BetterDiff` that intelligently retain bracket pairing while calculating edit distance.
· Enhanced the system to be able to track editting ancestry in large hierarchially structured multi-file system, producing standard `diff` patch files as well as intuitive side-by-side visualization.

HMM EM Tagger   Myself
NLP Tagger Supervised-Learning Semi-Supervised-Learning HMM EM Java   *2017, Baltimore, MD*
· Compact implementation of a Hidden Markov model based tagger that can do not only supervised learning with viterbi decoding and posterior decoding, but also semi-supervised learning with expectation–maximization algorithm.
· Innovative optimization of word-similarity based tag dictionary pruning that speeds the tagger up by 50%-80% depending on task.

Padding Oracle Attack Demo   Myself
Cryptography Security HMAC SHA AES-CBC Go   *2017, Baltimore, MD*
· Down from scratch Golang implementation of a typical padding oracle attack process. Includes both an authenticated encryption component and the adversary component, with almost everything manually implemented down to the integer.

Technical Skills (in order of nonascending proficiency)

Languages   Java, Go, C, Python, SQL, Ocaml, Swift, Prolog, JavaScript, jQuery
Frameworks & Platforms   JavaSpark, Flask
Tools   Git, Sublime Text, LATEX, Linux, shell, Microsoft Office, Intellij IDEA, MySQL

Coursework Highlights (Graduate Level)

Algorithms	Object Oriented Software Engineering (OOSE)	Databases
Computer Networks	Principles of Programming Language	Declarative Methods
Natural Language Processing	Practical Cryptographic Systems	Operating Systems
Machine Learning		