Zhiyan Foo

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Objective A position in backend development or data analysis.

Background During high school and while in the army, I pursued my interest in programming by taking online courses as well as working on my own software projects. I've also studied mathematics intensely while in the army.

Education

Beijing BISS International School – Beijing, China.

- International Baccalaureate (41/45 points).
- Technical Subjects: Math HL 6/7, Physics HL 7/7, Chemistry HL 7/7.
- Math Extended Essay (A).

Employment **Army** – Singapore Armed Forces, 02/2015 to 02/2017. (National Service)

Technology (good level) python, numpy; (basic level) Mathematica, C, Java, HTML, CSS, LaTeX; (learning) Haskell.

Projects **crunch-shake** – A python library that evaluates scripts on the Bechdel Test and other similar metrics. Source Code : https://github.com/zhiyanfoo/crunch-shake/.

Additional Relevant Coursework

Learning From Data – *Caltech telecourse.*

- Introductory Machine Learning course focused on mathematical rigor. Machine learning algorithms like Percepton with Stochastic Gradient Descent, hard-margin Support Vector Machines and Logistic Regression built from scratch.
- Source Code : https://github.com/zhiyanfoo/caltech-machine-learning/

Real Analysis, Convexity and Optimization – *Harvard Extension School.*

- Upper-division pure math course focused on optimization problems with convex sets, normed infinite-dimensional vector spaces, and convex functionals.

AP Computer Science A – *American Advancement Placement Exam.*

- Score (5/5). Main topics included were sorting algorithms and object-oriented programming.

Algorithms on Strings – *Coursera, University of San Diego.*

- String compression and search algorithms e.g. Suffix Trees, Burrows-Wheeler Transform and Knuth-Morris-Pratt.

Complete list of coursework done can be found at https://zhiyanfoo.github.io/learning/.

Mathematics Linear Algebra, Multivariable Calculus, Differential Equations, Stochastic Systems, Real Analysis.