Fanying Ye

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EDUCATION

Tufts University, Medford, MA — Expected May 2016
Master of Science in Electrical and Computer Engineering, GPA 3.83/4.00

Beijing Institute of Technology, Beijing, China — September 2010 - July 2014
Bachelor of Science in Electronic Science and Technology, GPA 90.37/100

TECHNICAL SKILLS

Programming Languages: Java, C++, C, Python
Web Tools: Ruby on Rails, Ruby, JavaScript, jQuery, Bootstrap, CSS, Ajax, HTML
Databases: PostgreSQL, MySQL, MongoDB
Applications: Eclipse, weka, Visual Studio, MATLAB
Environment: Linux, UNIX, Windows

RELEVANT COURSEWORK

Data Structures (with lab), Algorithms, Advanced Algorithms, Web Engineering, Database Systems, Object-Oriented Programming for Graphical User Interfaces, Operating Systems, Human-Computer Interaction, Introduction to Machine Learning and Data Mining, Computer Engineering (with lab), Probabilistic Systems Analysis

ACADEMIC PROJECTS

Web Engineering projects (Ruby on Rails) — January 2016 - Present

- Designed data schema and wireframe for an incident reporting web application
- Implemented the most critical features of the product: Entry of a new incident, list open incidents on a timeline and display a particular incident in a view on web browser using RoR
- (https://comp120team8reporter.herokuapp.com) Deployed Minimum Viable Product (MVP) to production using Heroku
- Provided test for MVP using Rspec testing framework
- Optimized static content using technics like Expiry, Content Delivery Network, Gzip, etc.
- Implemented RESTful APIs using Grape for product

Data structure projects (C++) — January 2015 - May 2015

- Boggle Game (https://www.eecs.tufts.edu/~fanying/bog15/): Implemented a solver by recursively finding all possible paths on board for all solutions of boggle, a checker and a grader for answers of users
- Three Sorts: Programmed to implement three advanced sorting algorithms: Selection sort, Insertion sort and Quick sort, and evaluated corresponding performance

Oop for GUI projects (Java, Javascript, Python) — September 2015 - December 2015

- Built up a simulation of a control console for handling several remotely-piloted airplanes or UAVs using Java Swing
- Used Three.js and Javascript to build an interactive 3D world of UAV console
- Implemented Python version of UAV simulation

Machine Learning projects (Java) — September 2015 - December 2015

- Implemented and evaluated algorithms including kNN, Relief, Naive Bayes for Text Categorization, k-means Algorithm and Primal and Kernel version of Perceptron

Don't Tap The White Tile (JavaScript)

- Implemented this web game by DOM operation, timer setting and event delegation

WORK EXPERIENCE

Tufts University ECE Department, Medford, MA September 2014 - December 2015

Teaching Assistant

- Grade homework for Introduction to Computing in Engineering, Introduction to Electrical Systems and Probabilistic Systems Analysis.
- Mentor students for MATLAB Lab
- Provide individual assistance to students during open office hours

North China Research Institute of Electro-optics, Beijing, CHINA January 2014 - July 2014

Intern

- Worked in the System Design team
- Designed, fabricated and tested circuits of laser spot measuring and recording device
- Programmed in MATLAB to develop a GUI to show statistics, 2D and 3D graph of measured laser spot.

AWARDS

Mathematical Contest In Modeling, April 2014

- **The Meritorious Winner, for top 9%**

National Undergraduate Mathematical Contest in Modeling of China, October 2013

- **First Prize**