Xinying (Ashley) GUO

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EDUCATION

Tufts University, Medford, MA Sep 2017 - Aug 2019
M.S., Electrical and Computer Engineering. GPA: 3.61/4.0

Beijing University of Posts and Telecommunication, Beijing, China Sep 2013 - June 2017
Dual Degree with **Queen Mary University of London**
B.S., Telecommunications Engineering (Multimedia) with Management. GPA: 3.5/4.0

Relevant Courses: Machine Learning, Data Mining, Operating Systems, Databases, Data Visualization, Software Engineering, Java Programming, Image Processing, Computer Network, Data Structures, Algorithms

SKILL

- **Programming Languages:** JAVA, Python, JS/SCSS/HTML, C/C++, C#, PostgresSQL, MySQL
- **Skills:** Machine Learning, Databases(SQL), C++ Dev, Web Dev, Data Visualization, Shell Script, Linux
- **Frameworks and Tools:** Backbone.js, UWA API, Maven, Tomcat, Hibernate, RDF Framework, ASP.NET
- **Software:** REST APIs, Git, Pandas, Numpy, Scikit-Learn, OpenGL, Highcharts.js, D3/SVG

EXPERIENCE

Dassault Systems, MA June 2019 – August 2019
Full-Stack *Engineer Intern*

- Developed new features for ENOVIA, a cloud based PLM (Product Lifecycle Management) system using JS/SCSS/HTML, facade pattern and Backbone.js, Highcharts.js, Node.js, UWA, RequireJS, frameworks.
- Implemented a system to automatically generate supplier's profile given supplier's name.
- Developed a user profile completion score system with portable weights stored in JSON file.

Tufts Wireless Laboratory, MA Jan 2019 – August 2019
Web Programming Research Assistant

- Used Java, Maven, Tomcat, Hibernate and HTML/CSS/Bootstrap to build a web platform (RESTful) that converts UDP data transferred via the 6LoWPAN protocol into HTTP.
- It enables IoT devices to connect directly to the internet instead of going through Bluetooth (limited communication distance) or TCP (resource consuming).

Autodesk Inc., MA May 2018 - Aug 2018
R&D Software Engineer Intern

- Created a new feature prototype that regenerated 3D views of construction models within Assemble Systems (cloud-based software) in AutoCAD and LandXML using C#, .NET (WPF), and Autodesk APIs.
- Presented my new feature to the VP of Autodesk Construction Solutions in Houston.

PROJECTS

Movie Recommendation System (Python3, Surprise, Autograd)

- Implemented a recommendation system to give top 6 movies a user would like with 88% accuracy based on the user's history and rating.
- Tuned collaborative filtering models using KNN approaches for recommendation in surprise package.

Train Management System Design (Java)

- Implemented a subway management system using Agile methods to assign drivers to trains, manage routes and journeys, and check train live status.
- Designed class, architecture, user interface (GUI) and the process of iteration and estimation.

US Wine Visualization Web Design (JS/HTML/CSS/D3)

- Visualized US wine production and consumption by collecting CSV data and displaying it on a web page.
- Drew US map with wine data (D3/SVG), bar chart, and tooltips to show wine production and wine rating.

Space-Time Cube for Trajectory Visualization (C++, OpenGL)

- Implemented a system to visualize 3D GPS trajectory data (with time) with a 2D map to investigate the dynamics and general patterns associated with human movements for traffic optimization.