

Yuqing Guo

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Educational Background

Sep 2013 - Jun 2017 **Tongji University** **Major in Software Engineering** **Shanghai**

GPA: 4.5/5, Rank: 19/180, TOEFL: 108, GRE: 323+3

Selected Courses: C Programming Language (A), User Interface Interaction (A), Software Engineering (A), Computer Graphics (A), User Interface Design (A), Computer System Architecture (A)

Work and Internship Experiences

Jul 2018 – Present, *Software Engineer, Independent Contractor, Shanghai Shurong Data Technology Co. Ltd.*

- Participated to develop a product that can visualize and simulate population data for urban planning bureau
- Integrated multi-source population data, displayed the data in a visual format in the space, combined the specific urban planning requirements to conduct interactive and dynamic visualization at a micro scale
- Applied **D3.js** to complete the development of functional modules for visualization, used **Python, Pandas, and Numpy** to process data, optimized the code of D3.js, improved system performance by 20%, completed a demo at this stage.

Jul 2017 - Jul 2018, *Product Manager/Front-End Developer/UX/UI/Python Developer, Shanghai If Create Education and Technology Co., Ltd.*

——A start-up that is committed to applying Artificial Intelligence to Education for primary and elementary schools

- Used **Vue.js** to develop a node drag-and-drop Web IDE, completed the front-end development of logic node module and notification module, designed the data structure of the project, formed a document to facilitate subsequent development
- Sorted out the basic needs and architecture of the AI Course Platform, conducted product design and analyzed the requirements of specific module, produced PRD, tracked project progress
- Responsible for the overall technical architecture design, made project development plan, quantified tasks and assigned them to appropriate personnel, coordinated among project team members
- Developed corresponding instruction code examples for each lesson, used **Jupyter Notebook** as a teaching tool on which the programming materials of the design are placed. The platform can execute code blocks and insert description blocks into the code, is a web based interactive programming IDE convenient for students, improved class efficiency by 30%

Mar 2017 - Jun 2017, *Front-End Developer Intern, Shanghai Aiyun Information and Technology Co., Ltd.*

- Used **Three.js** as a web 3D library, read suspect data by JSON, developed a 3D social network diagram system to display information data, helped the police to analyze suspect information more conductively
- Solved the problem of the natural distribution of node 3D, studied the mainstream **force-directed layout**, rewrote the algorithm using **JavaScript** and applied in 3D scene, redrew partial map by algorithm according to data level required
- Optimized the performance and improved efficiency by 10%

Oct 2015 - Jun 2017, *Developer/UI Intern, Shanghai Miaoguo Digital Technology Co., Ltd.*

- Participated in the project of designing an application of AR indoor navigation for a hospital, used **Visio** to design information structure, wireframe, and UX documents
- Assisted in the front-end development of a BMW car multimedia system, used **GLSL (shader language)** with **C language** to develop **OpenGL-based** vehicle front-end system, wrote two large modules utilizing **GLSL** and **Protocol Buffer**, completed interactive logic using C language, completed the anti-aliasing optimization
- Optimized the calculation of the code according to test requirements, the performance of responsible module is improved by 75% by reducing the call of the main drawing function

Research Experiences

Jun 2017 - Jul 2018, Python/C# Developer, CDI Laboratory, School of Design and Innovation, Tongji University

- Developed a computer vision recognition device using **OpenCV3+Python**, visually identified the type of LEGO slider and its position, drove parameter changes in the visualization interface
- Developed a tool that can communicate with Arduino board using the **Intel RealSense C# SDK** based on serial communication, stripped and repackaged the data recognized by RealSense, combed into JSON and passed to Arduino
- Facilitated the use of RealSense for amateurs to conduct creative design, reduced their technical difficulties, increased the flexibility and efficiency of application

Apr 2016 - Sep 2016, Front-End Developer, Tongji University

- Participated in the web development of SVG map annotation, used **Panthom.js** to complete the color picking function module on the SVG map annotation software, optimized the hierarchical structure of the annotation

Mar 2015 - Mar 2017, App Developer, Tongji University, University Students Innovation Project

- Designed and implemented an iOS application that helps users make travel plans
- Conducted demand modeling, interaction and visual design based on user research, used **Objective-C** for iOS development, used **spring boot** as a back-end framework, combined with map SDK, designed a path planning algorithm based on the Dijkstra algorithm

Social and Voluntary Work

Sep 2014 & Sep 2015, Volunteer, Greater China Developers and User Groups Shanghai Forum

Held by Tongji University and IBM Silicon Valley Lab

- Responsible for the daily affairs of the venue, performed *Cannon* at the dinner party as a member of the acapella group

Mar 2015, Volunteer, FIRST Technology Challenge - China Finals

- Recorded the scores of each game, placed them in the bulletin, assisted in handling appeals due to question points

Honors and Awards

- Extraordinary Student, Tongji University, 2014, 2015, 2016 (3/180)
- First Prize of Academic Scholarship, Tongji University, 2015 (Top 5%)
- Second Prize of Academic Scholarship, Tongji University, 2014, 2016 (Top 10%)
- Third Prize of Academic Scholarship, Tongji University, 2013 (Top 15%)

Hobbies

- Singing (10 years), Drawing (6 years)