Frederick V. Qiu

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EDUCATION

Princeton University, College of Arts and Sciences   **Princeton, NJ**
Candidate for Bachelor of Arts in Computer Science   *May 2023*
- GPA: 3.966/4.0   SAT: 1600/1600
- Relevant Courses: Advanced Algorithm Design (Grad. Course), Graph Algorithms & Data Structures (Grad. Course), Theory of Algorithms, Algorithms & Data Structures, Intro to Programming Systems, Honors Linear Algebra, Classical Mechanics

PROFESSIONAL EXPERIENCE

Qualytics   **Warminster, PA**
Web Developer and Data Interpreter   *Jun 2020 – Present*
- Built a website from scratch using HTML, CSS, JavaScript, PHP, and MySQL
- Implemented secure login system and a system for clients to submit requests for NMR tests on samples
- Interpreted NMR test data to identify chemical structure of samples for clients
- Third author in paper published in Tetrahedron Letters

IQVIA (Quintiles & IMS Health)   **Plymouth Meeting, PA**
Student Intern   *Jul 2019 – Aug 2019*
- Deployed a proof-of-concept for clinical trial software as a low-cost alternative to conventional methods offered by companies such as IBM (potential savings estimated at around $1.5 million) using Java, JavaScript, Excel, and XML
- Completed 8-week long project 6 weeks ahead of schedule and presented to senior officers; project later presented as a case study to the global Systems Development group (July 2020)
- Implemented SSIS packages using MS SQL to export tables to fixed-width text files
- Created Java package to automatically map SQL cube attributes to SQL table columns from an XML definition file

Independent Research   **Bluebell, PA**
First Author   *Jun 2017 – Jan 2018*
- Conducted statistics research on public opinion regarding pollution and economic growth in China with Professor Zuyi Huang
- Conducted analyses such as Principal Component Analysis on multidimensional datasets (using R)
- Authored a paper in MDPI and presented research at the American Institute of Chemical Engineers Annual Meeting (2018)

EXTRACURRICULAR ACTIVITIES

Computer Science Teaching Assistant   **Princeton, NJ**
Paid Teaching Assistant for Algorithms and Data Structures and Introduction to Programming Systems   *Jan 2020 – Present*
- Hold 1-on-1/small group office hours and help sessions for 4 hours a week, working with 10+ students per week

Princeton Tutoring   **Princeton, NJ**
Paid Tutor   *Nov 2019 – Present*
- Tutored a high school student for AP Calculus BC for 1-2 hours a week, doing 1-on-1 sessions and constructing practice worksheets. Student received 5/5 on the AP exam

Minecraft Server (Monumenta)   **Doylestown, PA**
Lead Developer   *Dec 2018 – Present*
- Volunteered in an online project to develop a free-to-play, unique MMORPG Minecraft server with 6,000+ players
- Developed Java plugins that extend default Minecraft functionalities, contributing 20,000+ lines of code on GitHub

PERSONAL

Skills	Mandarin (Simplified), Algorithms, Linear Programming
Languages	Java, C, Python, JavaScript, PHP, SQL, HTML, CSS, R
Interests	Programming, Electronic Music, Video Games, Running
Awards	Dean's List (2020), National Merit Scholarship Finalist (2019), High School Valedictorian (2019)