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: 3.984/4.0
- Graduate Courses: Probability Theory, Mechanism Design, Advanced Cryptography, Extremal Combinatorics, Advanced Algorithm Design, Graph Algorithms & Data Structures, Streaming and Sketching Algorithms, Hadwiger's Conjecture
- Undergraduate Courses: Machine Learning Theory, Information Security, Distributed Systems, Honors Linear Algebra

PROFESSIONAL EXPERIENCE

Princeton University Princeton, NJ

Independent Research

Jan 2021 – Present

- Conducting theoretical computer science research on combinatorial optimization and probability with Professor Sahil Singla
- Sub-reviewer for the prestigious Conference on Web and Internet Economics (WINE)

Qualytics Warwick, PA

Data Interpreter and Web Developer

Jun 2020 - Present

• Built (and currently maintaining) website using HTML, CSS, JavaScript, PHP, and MySQL with a secure login system and functionality for clients to submit requests for NMR tests

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
- Project later presented as a case study to the global Systems Development group (July 2020)

PUBLICATIONS

Facile synthesis of the glucosyleramide synthase inhibitor GZ667161

Tetrahedron Letters

Third Author

Aug 2020

A Questionnaire Case Study of Chinese Opinions on the Haze Pollution and Economic Growth

MDPI Sustainability

First Author

Jun 2018

EXTRACURRICULAR ACTIVITIES

Princeton Computer Science Department

Princeton, NJ

Paid Teaching Assistant and Teaching Assistant Administrator

Jan 2020 - Present

- Manage and maintain online TA resources and involved in interviewing/hiring prospective TAs
- Grade problem sets for advanced CS classes and hold office hours for intermediate CS classes (~8 hours each week)

Minecraft Server (Monumenta)

Dovlestown, PA

Lead Developer

Dec 2018 - Present

• Open-source GitHub contributor (authored 27,000+ lines of Java code) for Minecraft server with 150+ concurrent players

AWARDS AND RECOGNITIONS

George B. Wood Legacy Sophomore Prize

Princeton University

Awarded to the student of each class with the highest academic standing

Aug 2021

PERSONAL

Languages Java, C, Python, JavaScript, PHP, SQL, HTML, CSS, R, Mandarin (Simplified)

Interests Programming, Electronic Music, Video Games, Running