William Zhang

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EDUCATION

Cornell University Ithaca, New York

Bachelor of Arts, Computer Science & Economics; Data Science & Business Minor (GPA: 3.8 / 4.0)

May 2025

Relevant Coursework: Algorithms, Machine Learning, Artificial Intelligence, Operating Systems, Databases, Object Oriented Programming, Discrete Structures, Computer Systems, Functional Programming, Computer Vision, Game Theory

TECHNICAL SKILLS

Programming Languages: Python, Java, Javascript/Typescript, OCaml, R, SQL, Swift, HTML/CSS, C++ **Technologies:** AWS, Presto, Cloud, React, Node/Express, MongoDB, Firebase, Pandas, Azure, Digital Ocean, Figma, Git/GitHub, Heroku, HTTP Protocols, NPM, NextJS, Postgres, Postman, RESTful APIs, Tableau, Vercel, Yarn, R Studio

WORK EXPERIENCE

Amazon Web Services (AWS)

Washington, DC

Software Engineer Intern

May 2024 - August 2024

- Developed the Query Bridge feature for AWS CloudTrail Lake, enabling 53,000 companies to federate data from data stores and services for a unified audit, security, and operational experience in CloudTrail's console.
- Integrated EC2 EMR clusters with AWS Glue, S3, and Lake Formation to support Query Bridge functionality.
- Enhanced the Query Lib translation function to allow queries on external data using Presto and Hive engines.

Millennium Management

New York City, NY

Software Engineer Intern

January 2024 - May 2024

- Built an interface to allow our hedge fund analysts to view Value at Risk values based on filtered positions, desks, pods, etc to quickly analyze and measure risk on long, short, and neutral positions.
- Optimized backend infrastructure and API to support 10 years of historical PnL for 200,000 tradable securities (stocks, bonds, futures) with 1M+ positions to allow over 200 users to query under 1 second at max load.

Design Tech Initiative

Ithaca, NY

Technical Product Manager, Software Developer

October 2021 - December 2023

- Led engineering efforts in a cross-functional team to implement a university-wide review application, increasing web traffic by 41% and new reviews by 13%, with 2,300+ monthly active users.
- Designed and developed a k-means clustering machine learning algorithm to provide users with item recommendations from an API of 100,000+ items; automated loading of top recommendations to MongoDB.
- Migrated to Microsoft Azure and Azure Identity Management, setting up automated communication pipelines via Microsoft Graph API, reducing redundant administrative duties by 86% for over 1,600 users.

Yonsei University

Seoul, South Korea

Student Research Assistant

June 2023 - August 2023

- Applied NLP Algorithms to calculate Vader polarity scores for Fortune 500 companies, extracting valuable insights from scraping articles and comparing them to market trends using Finnhub API.
- Navigated EDGAR, FRED, and other SEC public databases, presenting comprehensive financial reports through SQL queries on Postgres, regressions on R Studio, Excel/JMP Pro pivot tables, and Tableau for impactful data visualization.

Association of Computer Science Undergraduates

Ithaca, NY

President

September 2022 - December 2023

- Managed communication and allocated a \$10,000 budget across 6 different sub-teams with over 40 officers, facilitating academic, social, and professional programming for over 500 general body members and the greater Cornell community
- Secured corporate sponsorships and collaborated with academic personnel to organize research events, faculty luncheons, informational sessions, workshops, hackathons, socials, and other initiatives.

China Delight

Baltimore, MD

Software Engineer

March 2020 - June 2021

- Engineered and launched a responsive online ordering platform on Digital Ocean built on React and Express with PayPal checkout to boost online traffic, resulting in 13,000+ orders and \$312,000+ in annual revenue after launch.
- Conducted data analysis using MongoDB to identify trends in popular items, peak seasons, and customer experience.