# Diana (Jiayu) Xu

Harrison, NJ | 518-961-3558 | diana.xu.cornell@gmail.com
https://www.linkedin.com/in/diana-xu-5a5a151a3/

## EDUCATION

**Cornell University**, New York, NY                                                                                          May 2024
*Master of Engineering in Computer Science* | GPA: 3.855

**University of Michigan,** Ann Arbor, MI                                                                                 May 2023
*Bachelor of Science in Computer Science and Data Science* | GPA: 3.779

### COURSEWORK
- Web Systems, Object-Oriented Programming, Data Structures and Algorithms, Cloud Computing, Foundation of Computer Science, Database Management System, UI/UX Design
- Computer Vision, Machine Learning, Human-Computer Interaction

## TECHNICAL SKILLS

**Frontend**: JavaScript, TypeScript, HTML, CSS
**Backend:** Python, C++, React, Node.js, Next.js, RESTful API, Flask, AWS, Vite, Java, Linux, Bash, SQL, MongoDB, DynamoDB
**Productivity:** Visual Studio, Slack, Github, Git, Version Control, Trello

## WORK EXPERIENCE

**Sumitovant Biopharma Ltd., Software Engineer Intern, New York, NY (Remote)**            May 2022- August 2022
- Designed a full-stack web application in **Flask** for data analysis, enabling **XML** data uploads and automating in-house data processing by integrating **Python** and **R** environments, reducing manual effort by 40%
- Built interactive dashboards for real-time data visualization, improving efficiency of clinical data analysis for stakeholders
- Collaborated with clinical researchers to align data comparisons with FDA guidelines, developing a Python-based tool to extract and synthesize metrics from 10+ research papers

**Sumitovant Biopharma Ltd., Data Analyst Intern, New York, NY (Remote)**                     Aug 2021- Dec 2021
- Conducted comprehensive Network Meta-Analysis (NMA) of clinical trial data across multiple studies in **R**, identifying trends in treatment efficacy and safety that influenced strategic decisions
- Automated data quality checks and streamlined reporting pipelines, improving data processing speed by 50% while ensuring data integrity and reproducibility for regulatory review

## PROJECTS

**HugMed Venture Software Development**                                                                    Jan 2024 - Present
- Spearheaded a team of 3 to develop  a full-stack serverless medication tracking application with microservices architecture from 0 to 1 for a healthcare technology startup venture backed by Cornell University, continuously improving user-friendly features to amplify medical adherence rates for elder patients and their caregivers
- Structured end-to-end workflow and implemented user authentication, medication management and tracking features using **React, Node.js, HTML, CSS**; Constructed message middleware for seamless data exchange between web app, hardware, and database, and optimized CI/CD pipelines, reducing report generation time by 70%
- Leveraged AWS and Supabase services (including API Gateway, Lambda, and DynamoDB) to create a highly scalable and reliable backend infrastructure, enabling seamless user interactions and real-time medication tracking
- Streamlined database performance by optimizing **PostgreSQL** schema, achieving a 30% reduction in query execution time, and significantly accelerating engineering project workflows
- Collaborated with cross-functional teams to deliver features on schedule with Trello and improve product quality
- Initiate frontend UI in **Figma** to support product pitches, directly contributing to successful securing of $5,000 in entrepreneurship competition awards

**NewSearch Website** [Product Site]                                                                    August 2023 - Dec 2023
- Built a responsive news search application from ground up using **Next.js, React, and JavaScript**, integrating New York Times API for real-time article retrieval and display
- Architected and implemented **Firebase** Authentication and Firestore to manage user sign-in, like/unlike functionality, and store favorite news articles in a personalized user portal

**Instagram-like Web System** [Github]                                                                     Aug 2022 - Dec 2022
- Produced an Instagram-like web application with **RESTful API** and a user interface on both server-side and client-side to support creating accounts, following, liking, commenting, uploading photos, and more
- Integrated with **React (JavaScript)** for front-end, **Flask (Python)** for back-end, **JSON** for data interchange, and **SQLite** for database, with deployment to **AWS**

**Automated Subject Classification of Piazza Posts**                                                     Aug 2021 - Dec 2022
- Developed a Naive Bayes classifier in **C++** to classify Piazza posts using natural language processing and machine learning