Nehemiah Yu

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Education

University of Michigan - GPA: 3.90 August 2021 - May 2025
Majors: Computer Science, Data Science, Minor: Mathematics *Ann Arbor, Michigan*
Coursework: EECS 482: Operating Systems, EECS 281: C++ Data Structures and Algorithms, EECS 445: Machine Learning, EECS 448: Applied Machine Learning for Modeling Human Behavior, Math 465 Combinatorics
Activities: Michigan Investing Group, Michigan Research Discovery Scholars, Michigan Table Tennis Team
Awards: MathCon - National Qualifier, University of Michigan Dean's List, The College Board Opportunity Scholarship Award, Randall Kaplan Endowed Scholarship, National Collegiate Table Tennis Association Scholarship Award

Technical Skills

Languages: C++, Python, Golang, JavaScript, SQL, TypeScript, Java/Kotlin, HTML/CSS
Technologies: React, React Native, Angular, gRPC, Flask, Django, Firebase, pandas, NumPy, PostgreSQL, Git

Experience

Backend Software Engineer Intern May 2023 - Current
Robinhood *Menlo Park, CA*
- Developing complete end-to-end user-facing feature for spending history tab on Robinhood's debit card that caters to over one million users, and utilizing many different technologies such as Golang for gRPC API framewrk, and Python for gRPC to HTTP translation
- Authored a comprehensive technical specification and design document collaborating with multiple project contributors such as front-end engineers, product manager, content designer, and UX designer

Instructional Aide Teacher - Database Management Systems Jan 2023 - Current
University of Michigan College of Engineering *Ann Arbor, MI*
- Providng instructional support for the class EECS 484: Database Management Systems, including leading a discussion section, assisting with course materials and slides, and holding office hours

Frontend Software Engineer Intern June 2022 - August 2022
HubSpot *Cambridge, MA*
- Improved the import export experiences for users on HubSpot's main product, the Customer Relationship Management Platform (CRM), using ReactJS, TypeScript, Selenium acceptance tests and Jasmine Unit Testing
- Implemented feature allowing users to import contacts into a list saving valuable time for over 3000 weekly users
- Collaborated with back-end developers to understand pain points in documentation to automate a pipeline using a git pre-commit hook that converted tracked interaction events in YAML format into a readable markdown

Machine Learning Research Assistant September 2021 - April 2022
Michigan Medicine Cell and Developmental Biology Lab *Ann Arbor, Michigan*
- Led machine learning project to post hoc improve image resolution of neural images and to compress, store, and efficiently retrieve tens of terabytes of mouse brain data, saving dozens of hours in processing time
- Adapted Super Resolution Generative Adversarial Networks in Pytorch to handle super large scale biomedical image processing and analysis, resulting in presentation at National Conference on Undergraduate Research (NCUR)

Projects

Dating App | *React Native, Firebase, Tailwind CSS, Google Auth, Javascript* October 2021 -- Current
- Created a dating app with Google Authentication, React Native Swipe Gestures and Chatting Feature through Firebase Realtime Database
- Implementing "Boyfriend/Girlfriend" Application feature which allows the user to create custom questions
- Developing feature to allow users to discover potential matches by searching for their peers' profiles combined with recommendation algorithm based on friends' mutuals

Michigan Investment Group Platform | *Angular, Firebase, Financial Modeling API* September 2021 -- May 2022
- Integrated TradingView financial charts into Angular Web Application that aids club members in investing
- Connected Financial Modeling API for accurate real time stock price

Graphics Engine | *Python* January 2021 -- June 2021
- Programmed a Graphics Engine using linear algebra and Python
- Implemented ideas including: Bresenham's line algorithm, Edge Matrix Manipulation, rotation/transformation matrices, 3-d shapes (sphere, torus, box), lighting models, z-buffering, the Phong Reflection model