Nitya Arora

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Education

B.S. Computer Science, Georgia Institute of Technology **Expected Graduation Year: 2024**
Relevant Coursework: Object-oriented programming in Java, Data Structures and Algorithms, Design and Analysis of Algorithms, Linear Algebra, Multivariable Calculus, Combinatorics, Finite Math Modeling, Post-Euclidean Geometry, CS Ethics, AI

Skills

Technologies: Python, Java, C++, JavaScript, Ruby, PHP, MongoDB, SQL, Objective C, P-Basic, NoSQL, HTML/CSS, Qiskit
Frameworks: React Native, Angular, Flutter, Laravel, Pandas, Tensorflow, JavaFX, AWS, REST, Scikit-Learn, Azure IoT Edge

Experience

Founder - Identity Wallet (www.identity-wallet.com) **(June 2021 - Present)**
- Developed an iOS/Android mobile app that empowers users to monetize and secure their data for businesses to use, onboarded 1000+ users and 6 leading brands within one month during beta testing.
- Attracted 5 advisory board members from prominent companies such as Twitter and DBS.
- Designed a patent-pending model for valuing user identity data (provisional patent available: bit.ly/3RKR684).
- Secured $200K seed funding to establish a remote developer and sales team for growth.

Software Engineering Intern (AI/ML) - Honeywell **(August 2023 - Present)**
- Developing a robust Natural Language to SQL model to improve accuracy of current basic implementations by 30%.
- Integrating and creating an intelligent chat system using the above for an asset management platform targeting the Department of Defense.

Software Engineering Intern (Innovation) - Chevron, San Ramon, California **(May 2023 - August 2023)**
- Documented and validated the use of Azure IoT Edge platform for automating human intervention and work in worldwide facilities and refineries.
- Created a CPU benchmark module to remotely query devices for usage, memory, and thread processing data to send to cloud.
- Deployed 5 load-testing modules with Computer Vision, Machine Learning, and external device capabilities on different edge devices using Azure IoT Edge.
- Developed an automated program streamlining module deployment across thousands of devices with varied architectures in under 10 minutes on average (compared to several days otherwise)

Software Engineering Intern - MatchMove (Award-Winning Asian FinTech) **(June 2021 - August 2021)**
- Built an iOS/Android app enabling 80 clients to integrate MatchMove API functionality and create a bank within their apps.
- Integrated and tested over 30 MatchMove payment API endpoints using unit testing and A/B testing methodologies.
- Overhauled technical documentation and more than 30 guide pages for the developer bases of MatchMove's clients.

Leadership & Projects

Research in Secure Hardware under Prof. Vincent Mooney - Georgia Institute of Technology **(January 2023 - Present)**
- Applied group theory to design and analysis of a more secure cryptographic primitive: Composite Mersenne Product Register.
- Refactored codebase to speed up simulations for attacks and security testing on High Performance Computing devices by 50%
- Developing new cryptanalysis attacks to explore weaknesses of the primitive and report on them in a paper to be resubmitted in January of 2024.

Co-Director/Associate Director - Startup Exchange Fellowship **(January 2023 - Present)**
- Orchestrated a pitch competition for 300+ students and industry VIPs, fostering connections in the startup sector.
- Managed 10 accelerator teams, guiding them in MVP development, customer engagement, and pivoting.
- Hosted weekly expert sessions on topics such as raising capital and product-market fit.

Software/Computer Vision Lead - GT Medical Robotics **(January 2023 - May 2023)**
- Developed ML and Computer Vision algorithms for medical robots to autonomously detect certain pills and provide them to patients at the correct time of day.
- Designed programs and led a team of 5 students to acquire appropriate ML and CV knowledge to interface software with robots and implement the solution over a semester.

Co-Captain & Lead Programmer - SpaceLab Singapore American School **(August 2021 - June 2022)**
- Headed the development of an experiment for bacterial bioplastics production on the International Space Station (ISS).
- Led a team of 3 developers to create a codebase for the final flight unit, conducting tests during the 30-day long experiment.

Achievements

- Secured 2nd place in the Startup Exchange Pitch Competition, earning a funding offer ($150k to drop out) from Chris Klaus.
- Ranked in the top 2.5% among 32,000 participants in the AMC Series.
- Achieved 2x World Mathematics Championship Qualification.
- Emerged as the winner in the IIT TrailBlazeHer Hackathon (Top 1%)