

Aayush Singh

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PROFESSIONAL EXPERIENCE

Co-Founder & Chief Product Officer - Moira Labs LLC

Sep 2021 - Present [3+ Years]

- Founded Moira Labs, a startup specializing in crypto and the gaming industry
- Secured over **\$20,000** in funding through Private Ventures Group accelerator and NYU Stern Venture program
- Led the development and launch of flagship application 'The Lost War', achieving **300+ users** in the first 3 months
- Designed codebase for a team of six developers using **Agile methodologies**, accelerating launch timeline by 3 weeks
- Removed obstacles for developers as **scrum master** during daily standups, increasing team velocity and autonomy
- Optimized server code and deployment for **AWS EC2 cloud servers**, cutting previous server costs by over 25%
- Evaluated blockchain provider APIs for leveraging NFT and **blockchain transactions** in production applications
- Setup **CI/CD pipelines** using GitHub actions to test and deploy code across repositories in a production environment
- Integrated and deployed blockchain technologies such as solidity smart contracts and automatic token exchanges
- Maintained identity management systems and SQL data storage, ensuring **data integrity and security** in the cloud
- Supervised all code contributions across three critical company repositories, with **2,000+ commits** per year

Software Engineer - 3DFS Technologies

Oct 2021 – Aug 2022 [1 Year]

- Built a custom **database** with PostgreSQL which increased inventory volume and availability by over 20%
- Created a virtual software control bus using **embedded C programming**, reducing machinery costs by 11% per unit
- Implemented automatic software updates through **Azure Cloud**, reducing clients' daily maintenance expenses
- Programmed real-time energy-monitoring processes to analyze system performance, cutting idle power usage in half
- Employed statistical analysis and **data modeling** to predict machine failure and course-correct preemptively
- Used **cryptography and cybersecurity** techniques to detect malware and securely lockdown and encrypt software

QUALIFICATIONS

- Conducted research with PhD candidates on pre-executing compiled C++ code by studying advanced logic systems
- Experienced at raising funds via pitching to Venture Capitalists, accelerator programs, incubators, and more
- Skilled in negotiating strategic partnerships and business deals to drive growth and expand opportunities
- Proficient in taking ideas, setting up the required infrastructure, and transforming them into shippable products

PROJECTS

Chopstix: Invented an algorithm to solve the game 'Chopstix', using dynamic programming and linear algebra

LitBot: Developed an artificial intelligence algorithm that uses machine learning to play the card game 'Literature'

SMTP Server: Created a custom implementation of the original SMTP protocol as server code in Python

Websites: Built multiple websites from scratch, without any frameworks, for fastest possible loading times

TCP: Independently implemented a custom variation of TCP networking which prioritizes large-scale data transfer

TECHNICAL SKILLS

Languages: C#, Python, JavaScript, Java, C, C++, Bash, HTML, CSS, SQL

Platforms/Frameworks: Linux, Windows, WSL, Node, React, NextJS, Unity, PostgreSQL, MongoDB

DevOps: Docker, Github, AWS Cloud, Azure Cloud, Postman, Ansible, Jenkins, Kubernetes

EDUCATION

University of North Carolina at Chapel Hill

Bachelor of Science in Computer Science, Data Science and Mathematics Minor
Cumulative GPA: 3.6, Carolina Honors Student, Graduated with Distinction

August 2020 - May 2023
[Chapel Hill, North Carolina]