Arsh Singh

Education

Cornell University Expected 2027

Bachelor of Science in Computer Science, Dyson Business Minor for Engineers, AI Minor

Ithaca, New York

Relevant Coursework

- *Mathematical Foundations of Computing (Discrete)
- *Linear Algebra for Engineers

- Object-Oriented Programming and Data Structures
- Multivariable Calculus for Engineers

(* = in progress)

Experience

Unreleased Startup December 2024 – Present

Software Developer

Ithaca, New York

- Contributed to the development of a peer-to-peer coursework help platform, enabling seamless collaboration between college students.
- Designed and implemented a Google SSO to streamline and improve security on the sign-in process for users.
- Utilized Python, Flask, and MySQL to build and manage the platform's backend infrastructure, enabling seamless data handling and application performance.

Cornell Digital Tech and Innovation

February 2024 – Present

Developer, CURaise

Ithaca, New York

- Contributing to the development of CURaise, a fundraising platform streamlining finances, analytics, and referrals for student organizations and buyers.
- Collaborating on backend and frontend features to enhance user experience and transaction efficiency.

Cornell Design and Strategy

February 2024 – Present

Technology Implementation Associate

Ithaca, New York

- Developing an NLP-based sentiment analysis system to extract insights from web-scraped reviews.
- Automating data collection pipelines for real-time analytics and trend forecasting.
- Working with cross-functional teams to apply data-driven solutions to strategic decision-making.

Future Engineers Academy

August 2023 - August 2024

Founder. Head Instructor

Hicksville, New York

- Founded and led FE Academy, a youth organization focused on STEM education (501(c)(3) status pending).
- Designed and taught interactive STEM lessons to upper elementary and middle school students at no cost.
- Conducted three successful week-long summer sessions at a public library with high engagement.
- Managed social media presence and shared STEM-related content (@futureengineersacademy).

Projects

 $AutoNote \mid React, Express, Firebase, OpenAI API$

November 2024

- Developed a full-stack web application that summarizes PDF files into Markdown format using OpenAI's GPT API.
- Implemented Google SSO authentication and data storage using Firebase, enabling secure management of uploaded notes and online access.
- Designed a responsive and modern interface using React and Vite, enhancing usability across devices.
- Partially Deployed the application on Fly.io, integrating a scalable backend with Express.

NFC Attendance System | Python, Java, DigitalOcean

December 2023

- Developed an attendance tracking system for a high school robotics team, using NFC stickers, a Java Servlet on DigitalOcean, and a Raspberry Pi sensor client with a TKinter UI in Python.
- Integrated with a Web-Scraping Discord Bot to relay attendance data and feature leaderboards to the team.

Technical Skills

Languages: Python, Java, C++, C#, HTML/CSS

Developer Tools: Visual Studio Code, IntelliJ IDEA, Git, OnShape **Frameworks and Libraries**: Flask, SQLAlchemy, React, Firebase

Technologies and Platforms: Linux, Unity, Oracle Cloud, DigitalOcean, CAD