Aayush Agnihotri

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EDUCATION

Cornell University Expected May 2026

Bachelor of Arts in Computer Science, Minor in Business | GPA: 3.99

Ithaca, New York

Relevant Coursework: CodePath Advanced TIP, Machine Learning, Analysis of Algorithms, Object-Oriented and Functional Programming, Data Structures, System Design, Computer Networks, Backend Development, Discrete Math

SKILLS

Programming Languages: Python, JavaScript, TypeScript, Java, C, C++, OCaml, SQL, HTML & CSS

Libraries & Frameworks: React, Express & Node.js, Flask, Spring Boot, Django, PyTorch, TensorFlow, Sklearn

DevOps & Cloud: AWS, Microsoft Azure, Google Cloud Platform, Docker, Jenkins **Databases & Tools**: PostgreSQL, MongoDB, MySQL, GraphQL, Git, Postman, Unix

EXPERIENCE

Paramount Software Engineer Intern

Jun 2024 - Aug 2024

New York City, New York

- Implemented a CNN in Python with TensorFlow to classify ephemeral text within media with 94% accuracy
- Utilized Spark and Jupyter Notebooks to analyze data and train machine learning models, reducing noise by 80%
- Deployed model with AWS Lambda and Jenkins to the AIML pipeline, processing 9,000+ hours of content yearly

Johnson & Johnson Software Engineer Intern

May 2023 - Aug 2023

Skillman, New Jersey

- Developed a ChatGPT-like AI chatbot using React, LangChain, and Django with 10,000+ users, achieving annual savings of \$20,000+ through process automation
- Applied NLP algorithms to create text-based vector embeddings, optimizing document similarity search by 70%
- Integrated Milvus vector database to store/retrieve embeddings alongside single sign-on through Microsoft Azure

Cornell Nexus

Sep 2022 - Dec 2023

Software Engineer

Ithaca, New York

- Spearheaded design and implementation of a full-stack GUI application in React and Node.js with Express, enabling transmission of robot state
- · Coordinated with an 8-member team to build robot field visualization software in Python using Numpy
- · Simulated traversal algorithms and finite-state machine paths to optimize robot navigation strategies

PROJECTS

Eatery | Python, Django, PostgreSQL, AWS, Docker

GitHub

- · Contributed to a Cornell Dining app with 40,000+ downloads, used by 10,000+ students and faculty
- · Optimized backend response times by 300% via route caching and refactored models to remove redundancies
- · Implemented user authentication and authorization, allowing for personalized notifications and protected routes

MusicMaster | JavaScript, Python, React, Flask, PostgreSQL

GitHub

- Built a machine learning music recommendation engine with React and Flask, leveraging the Spotify REST API and a dataset of 2,000+ song audio features
- · Created a kNN recommendation model employing cosine similarity with Pandas and Sklearn to recommend songs
- · Developed OAuth 2.0 compliant user authentication and utilized PostgreSQL for storing favorited content records

Volume | TypeScript, Python, MongoDB, GraphQL, AWS, Docker

GitHub

- Developed a cross-platform Cornell student publication app with 1,000+ users, facilitating exploration, sharing, and saving of content
- · Created content bookmarking through GraphQL queries and mutations, allowing for individualized experiences
- Streamlined user creation process by 150% through TypeScript automation and MongoDB database migrations

LEADERSHIP EXPERIENCE

Cornell AppDev

Sep 2023 - Present

Ithaca, New York

Backend Lead & Course Instructor

- Lead all backend development for a team of 50+ students building apps with 12,000+ active users
- · Collaborate with iOS, Android, Design, and Marketing teams in Agile development to create and maintain apps
- CS 1998 Course Instructor, teaching client-server architecture, database design, and DevOps to 100+ students