Aditya Singh

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EDUCATION

University of California, Irvine — Irvine, CA
Bachelor of Science: Computer Science with specialization in Intelligent Systems — *Expected March 2025*
- **Cumulative GPA:** 3.4
- **Dean's Honor List Recipient** (Spring 22, Fall 22, Spring 23, Fall 23)

EXPERIENCE

Sports Broadcast Crew — June 2023 - Present
ESPN+ @ University of California, Irvine — *Irvine, CA*
- Actively managed **production and broadcasting** of over 20 live sports events, ensuring high-quality visuals and audio.
- **Collaborated** with a 15-member team to manage executing real-time adjustments during broadcasts and enhancing broadcast quality.

Systems Software Engineer (Software Architect) — April 2023 - September 2023
CubeSat @ University of California, Irvine — *Irvine, CA*
- Led a team of several software developers and hardware engineers in the successful design and implementation of software systems, **enhancing system efficiency** by 20%.
- Drew several UML diagrams for software systems, significantly improving project **clarity and alignment** with objectives, as evidenced by a 15% decrease in development revisions.
- Engaged with major clients, like **Northrop Grumman**, to define and refine software requirements and adopt **agile methodologies** to enhance project adaptability.

PROJECTS

Webscraping Search Engine | *Python, Flask, NLTK, BeautifulSoup* — April 2023 – June 2023
- Developed a tailored web **search engine** for a given set of web pages, enhancing search accuracy and speed by 40% through Python, Flask, and BeautifulSoup.
- Improved search relevancy using **TF-IDF scoring and NLTK** for advanced tokenization and stemming.
- Integrated **OpenAI's GPT-3** via API to generate concise search summaries, elevating user experience by providing quicker and more accurate search results.
- GitHub Repository

Portfolio Website (FullStack) | *HTML, CSS, JavaScript, TypeScript, Netlify* — April 2024 – May 2024
- Engineered a **fully responsive personal portfolio** website using HTML5, CSS3, and JavaScript, ensuring optimal performance across devices and browsers.
- Implemented a **dynamic contact form with email functionality** using JavaScript's EmailJS Framework.
- Integrated media queries to ensure **compatibility and responsiveness** across various screen sizes.
- Utilized Netlify for **continuous deployment**, ensuring efficient version control and easy updates.
- GitHub Repository | Check it out!

Content Delivery Network (Backend) | *C++, OOP, Caching* — September 2022 - December 2022
- Designed and developed a CDN simulator in C++, enhancing data management efficiency by 30% through **advanced caching techniques**.
- Implemented caching mechanisms to store **text and binary files** in memory.
- Created functionality to track and identify the most frequently accessed files, **optimizing cache performance**.
- GitHub Repository

Multithreaded Producer-Consumer | *C, Multi-threading* — September 2023 - December 2023
- Implemented a **multithreaded producer-consumer simulation** in C using **POSIX threads, mutexes, and condition variables**.
- Ensured thread synchronization, **preventing race** conditions and ensuring producers and consumers operate efficiently with a shared buffer.
- Utilized **semaphores** to manage buffer availability, ensuring producers don't add to a full buffer and consumers don't remove from an empty buffer.
- GitHub Repository

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, TypeScript
Frameworks: EmailJS, Flask, POSIX
Developer Tools: Git, Docker, GitHub CLI, Google Cloud Platform, VS Code, Visual Studio