

# Aditya Singh

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## EDUCATION

### University of California, Irvine

Bachelor of Science: Computer Science with specialization in Intelligent Systems

- Cumulative GPA: 3.4
- Dean's Honor List Recipient (Spring 22, Fall 22, Spring 23, Fall 23)

Irvine, CA

Expected March 2025

## 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, EmailJS

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