Upanshu Parekh

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EDUCATION

University of Illinois at Urbana-Champaign

May 2025

Bachelor's in Computer Science

GPA: 4.00/4.00

- Relevant Coursework: Data Structures and Algorithms, Social Data Visualization, Computer Security
- Granted \$8000 from UIUC Pathways and Engineering Advancement Scholarships

EXPERIENCE

MiRage VR Labs

January 2025 — Present

Software Engineer

Champaign, IL

- Developed a virtual reality game using Unreal Engine 5 (C++) where students can conduct VR science experiments such as metal ion flame tests and acid-base titration
- Enhanced educational engagement by providing immersive learning experiences in a virtual environment

CodeHS

June 2024 — August 2024

Full Stack Software Engineer Internship

Chicago, IL

- Helped 5,000,000+ students learn Computer Science by developing educational product features for students and internal staff via Django relational database, Python, Docker, JavaScript, and Memcached
- Applied OpenAI word embeddings to 1,000,000+ paragraphs to make fast internal search engine using Facebook AI Similarity Search
- Implemented real time quiz leaderboard for student quiz competitions using Google Firebase

EXTRACURRICULARS

Formula SAE

January 2024 — April 2024

Member — Data Acquisition & Quantitative Analysis

- Developed an in-house Python file format converter for MoTeC i2 telemetry software by modifying open-source tools, saving the team over \$700 by replacing proprietary software
- Collaborated with team members to analyze and interpret telemetry data, contributing to performance improvements of the racecar

PROJECTS

Spotify Data Visualization with D3

March 2024 — April 2024

Frontend Developer

(musaic-psi.vercel.app)

- Developed the frontend design for Musaic, a visualization tool for Spotify listeners
- Utilized D3.js for data visualization and React.js for interactivity to track and display changes in music taste over time, reflecting the user's moods throughout the year

Videogame Community Server

August 2020 — October 2023

Systems Administration Lead

- Generated \$50/month in revenue by hosting Java videogame servers and a corresponding community website on Linux Virtual Machine backend using the LAMP tech stack (Linux, Apache, MySQL, PHP)
- Developed custom Java plugin in IntelliJ to manage virtual in-game currency more sensibly

SKILLS & INTERESTS

Languages: C/C++, Python, Lua, Java, JavaScript, TypeScript, HTML/CSS, SQL, IATEX

Tools: Git/GitHub, Unix, Visual Studio Code, Slack, MacOS, Linux, AWS, Google Cloud Infrastructure, Node.js

Frameworks & Libraries: React.js, Next.js, pandas, NumPy, Matplotlib, D3.js, LESS, Tailwind Interests: Formula 1 Racing, Weightlifting, Badminton, Meditation, Videogames, Astronomy