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

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
- Implemented Google Firebase to make real time quiz leaderboard for student competition

Lens N Specs — June 2021 — August 2021

Laboratory Technician Intern — **Hoffman Estates, IL**

- Automated entering large amounts of physical lens data into website database using AutoHotKey scripts

EXTRACURRICULARS

Formula SAE — January 2024 — April 2024

Member — Data Acquisition & Quantitative Analysis

- Saved the team $700 by developing Python file format converter, replacing proprietary software

PROJECTS

Spotify Data Visualization with D3 — March 2024 — April 2024

Frontend Developer — **(musaic-psi.vercel.app)**

- Collaborated in a team of 4 to craft a visually stunning HTML/CSS/JavaScript webpage, leveraging Figma to confirm design patterns with the team
- Employed D3.js and ReactJS for connecting Spotify accounts and visualizing listening history

Atari Breakout Videogame AI — March 2024 — April 2024

- Designed an AI that learns to play Atari Breakout by implementing DQN machine learning algorithms and mathematics with PyTorch, using a CUDA-enabled GPU for increased efficiency

Operating Systems (OS) Programming — January 2024 — April 2024

- Created custom Memory Allocator, Web Sockets, and custom Bash Shell purely in 100% C
- Utilized high-performance multithreading with careful synchronization to achieve parallelization speedup

Minecraft 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, HTML/CSS, SQL, LaTeX

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

Interests: Formula 1 Racing, Weightlifting, Badminton, Meditation, Videogames, Astronomy