Varun Venna

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EDUCATION

UCLA Los Angeles, CA

Bachelor of Engineering

Major in Computer Science; Graduation year: 2026

Relevant Coursework: Computer Organization, Data Structures and Algorithms, Software Construction Laboratory, Design of Digital Systems, Operating Systems

WORK EXPERIENCE

Brev.dev (Acquired by NVIDIA) March 2024 – July 2024

- Integrated a cloud service named Crusoe into the console through multiple functions that allow users to create, delete, stop, start, and retrieve information about an instance
- Tested and fixed over 30 Jupyter Notebooks for LLMs and multi-modal models including Mistral 7B, NVIDIA's NeMo Framework, TensorRT-LLM, LLaVa, and the StreamingLLM framework
- Contributed to a version bump for the CLI by doing a large overhaul and strengthening/removing commands as necessary
- Created a Golang script capable of creating and terminating Windows/Linux instances via Microsoft Azure

AVOLTA October 2023 – February 2024

- Established and maintained routing framework with Flask and SQL for a mobile vehicle monitoring app while enhancing security with a bcrypt hashing function and parametrized queries
- Collaborated in a small team to develop functionality and security for password change/reset, data accesses, login, register user, etc.

PROJECTS

Slide

- Created a dynamic web app using the MERN stack (MongoDB, Express.js, React, Node.js), libraries such as Chakra UI and React Native, and Git for version control
- Implemented features such as user authentication, event creation, user matching, and a leaderboard via API calls, fetch calls, and controller functions
- Employed bcrypt for enhanced security, salting passwords with extra bytes to deter hackers and hashing them before database storage

ShoulderMe

- Created a web app using the MERN stack, currently transitioning it into an IOS app using Swift, React Native, etc.
- Designed an algorithm to match users with peers who are most compatible with their interests
- Implemented an AI therapist using the Gemini API, alongside a calendar feature that enables users to monitor their moods over the month, functioning as a diary with both text and audio entries

NetPhlix

- Implemented a movie recommendation system utilizing a database with over 100,000 titles and users' watch history
- Created time efficient algorithms in order to be able to quickly analyze user watch history and recommend movies, resulting in a 35% increase in speed
- Used a diverse range of data structures and efficient algorithms, such as trees, hash tables, bubble sort, and merge sort, to significantly enhance the efficiency of the recommendation system

GoKart

- Designed and built a custom go-kart inspired by Mario kart, utilizing CAD and 3D printers for components such as brake pads, steering mechanisms, etc.
- Constructed the chassis from scratch, assembling the go-kart with screws and gussets as well as using saws/drills when necessary

ACTIVITIES

Bruin Hindus(Board Member) Sep 2022 – Present

- Avid volunteer and board member of Bruin Hindus. Helped many activities take place such as Bruin Bhangra, Diwali celebrations, and Holi celebrations in various locations around LA.

ADDITIONAL

Languages: Python, C/C++, Java, GoLang, JavaScript, CSS, Lisp

Technologies: Emacs, Express, Git, MongoDB, Node, OpenCV, React, Tensorflow, Shell, Angular

Certifications: Certified in Lean Six Sigma, Microsoft Excel, Microsoft Word, PowerPoint, 3rd Level Black Belt, Certified Sensei