

Dhanush Chilakala

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EDUCATION

Virginia Tech

B.E. Computer Science, B.S. Computational Modeling & Data Analytics

Blacksburg, VA

Aug. 2024 – May 2028

EXPERIENCE

Sustainable Food Manufacturing Research Team

January 2025 - May 2025

Provisur

Blacksburg, VA

- Worked under Provisur engineers and collaborated with research teammates to analyze industrial food processing equipment performance, focusing on sustainability and efficiency.
- Performed data acquisition and statistical analysis, and developed graphs and visualizations to identify patterns in hydraulic press energy usage and material properties of pork belly alternatives.

VTHacks

September 2024

VTHacks

Blacksburg, VA

- Built a Next.js and MongoDB based app that uses university food APIs to create a filterable system, allowing users to sort meals by time of day, proteins, calories, fats, and carbs for personalized nutrition access
- Competed against 600+ participants at VT Hacks, working closely with 3 teammates to contribute to both frontend and backend development, ensuring smooth integration and functionality across the app's features

HackTheChains

April 2024

SMU Blockchain Club

Dallas, TX

- Won 1st place in the Arbitrum track at SMU's HackTheChains Hackathon, competing against 100+ participants, by collaborating with a programmer and 2 business analysts to develop BountyBlock, a platform that connects skilled 3rd world developers with tech companies
- Developed BountyBlock's smart contract using Solidity to enable secure, transparent, and easily convertible transactions between companies and freelancers, utilizing stablecoins such as USDC
- Designed & implemented BountyBlock's user-friendly UI/UX using Figma, Next.js, and TailwindCSS, ensuring an intuitive and engaging user experience

AIFAHacks - AI Hackathon for Social Good

September 2023

AI For All Club

Richardson, TX

- Won 1st place overall at the AIFAHacks AI Hackathon for Social Good, competing against 200+ participants, by collaborating with 2 programmers to develop a website using Next.js that provides personalized advice on reducing users' carbon footprints based on their responses to a questionnaire
- Developed a Python API that leverages a Python Wrapper to connect the frontend with Google BARD, enabling seamless integration between the front end and the advanced LLM

PROJECTS

Wordle Solver | Javascript

April 2024

- Developed a comprehensive 5-letter word dataset by utilizing a Wikipedia dump to sort words by letter commonality resulting in an accurate and efficient analysis for Wordle
- Identified the optimal starting word for Wordle by analyzing letter frequency data leading to improved initial guesses and gameplay strategy

WDLM Discord Bot | Javascript, Discord.js, Next.js

January 2024

- Achieved efficient and cost-effective file storage by creating a Next.js application that splits and uploads files to Discord in 25MB parts resulting in the elimination of the need for additional physical storage hardware
- Implemented a file download feature by reassembling split files and enabling user downloads through the app leading to seamless access to stored files

TECHNICAL SKILLS

Languages: C/C++, HTML/CSS, Java, JavaScript, Python, R

Frameworks & Libraries: Astro, Better-Auth, Clerk, Firebase, Material-UI, Next.js, React, Sockets.io, Vite, NumPy, Pandas, Matplotlib

Databases: MongoDB

Developer Tools: Docker, Eclipse, Git, Google Cloud Platform (GCP), IntelliJ, Neovim, npm, VS Code