Karthik K P

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B.E, Computer Science and Engineering

KLE Technological University, Hubli

GitHub Profile

LinkedIn Profile

Education

•KLE Technological University, Hubballi *2022-Present*

B.E. in Computer Science and Engineering CGPA: 8.96 (till 5th sem)

• National PU College ,Vijayanagar *2020-2022*

PCMB(Class XII) Percentage : 95.8%

•Deepayan English Medium School *2020*

SSLC (Class X) Percentage : 95.2%

Personal Projects

•Blockchain-Powered Decentralized DNS for Enhanced Security

Implemented a decentralized alternative to traditional DNS, removing single points of failure and preventing censorship.

- Developed and deployed smart contracts on Ethereum (Sepolia testnet) using Solidity, Remix IDE, and MetaMask.
- Implemented keccak256 hashing for tamper-proof domain mappings and validation mechanisms.
- Designed and tested domain resolution smart contracts, ensuring secure mapping of domain names to IP addresses.
- Integrated a secure ownership transfer mechanism, allowing domain owners to transfer domains without third-party intervention.
- Conducted extensive security testing, preventing DNS spoofing, cache poisoning, and unauthorized modifications.
- Analyzed blockchain performance, comparing gas costs and execution times for different DNS operations.
- **Tech Stack:** Solidity ,Ethereum (Sepolia Testnet) ,Remix IDE ,MetaMask,Keccak256 Hashing,Etherscan.

•Poetry Generation using Transformer-Based Model (GPT-Neo)

Developed a poetry generation using trained limericks dataset

- Fine-tuned GPT-Neo on a dataset of limericks to generate structured poetry.
- Implemented tokenization, data preprocessing, and augmentation to improve text quality.
- Enhanced creativity and coherence using top-k sampling and temperature-based decoding.
- Optimized model performance by balancing entropy, perplexity, and compression ratio.
- Achieved a 12.77% improvement over GPT-4 in semantic coherence of generated poems.
- Technologies: Python, Gpt-Neo,Fine-Tuning.

•Placement Preparation Platform

Developed a full-stack web platform for aptitude, coding, and interview preparation.

- Designed and built an interactive platform to assist students in coding, aptitude, and interview preparation.
- Implemented secure authentication and a responsive UI for an enhanced user experience.
- Technologies : MERN Stack (MongoDB, Express.js, React.js, Node.js), JavaScript, HTML, and CSS.

Technical Skills and Interests

Languages: C/C++, Python, Javascript, HTML+CSS
Libraries : C++ STL, Python Libraries, ReactJs
Web Dev Tools: Nodejs, VScode, Git, Github
Frameworks: ReactJs
Databases: MOongoDb,Relational Database(mySql)
Relevent Coursework: Data Structures & Algorithms, Operating Systems, Object Oriented Programming, Database Management System, Software Engineering.
Areas of Interest: Web Design and Development, Data Science.
Soft Skills: Problem Solving, Self-learning, Adaptability

Achievements

•Research Publication at INCOFT, Pune

- Presented research paper on **Poetry Generation using Transformer-Based Model (GPT-Neo)** at INCOFT, Pune (2025).