

Lokeshwar Reddy Karra

| [GitHub](https://github.com/lokeshkarra) | [LinkedIn](https://linkedin.com/in/lokeshkarra) | [Twitter](https://twitter.com/melokeshkarra) | [Email](mailto:lokeshwarreddy.karra@gmail.com) |

WORK EXPERIENCE

- **Data Analytics Extern — Webacy:** 09/2024 – 10/2024
 - Web3 Security Data Analytics Externship
 - Analyzed 38+ risk metrics across **967 smart contracts** to identify vulnerabilities and improve Web3 security.
 - Built and validated datasets with **99% accuracy** for risk categorization using **SQL and Excel**.
 - Created dashboard in spreadsheet to visualize chain-specific risks, leveraging correlation ($\Phi < 0.1$) and frequency analysis.
 - Conducted clustering (**K-Modes, Hierarchical**) to group 900+ contracts by risk, enabling enhanced profiling.
 - Delivered actionable insights, reducing risk assessment time by 30%.

RESEARCH WORK

- **Enhancing Abstractive Text Summarization with Proximal Policy Optimization:** ↗
 - Proposed a novel PPO-based model integrating an encoder-decoder architecture, achieving a **40% improvement** in summarization accuracy.
 - Benchmarked on the **CNN/Daily Mail dataset** with applications in news aggregation and report generation. **(ICAECT - 2024)**
- **Enhancing Medical Imaging: Noise Reduction and Super Resolution with Transfer Learning:** ↗
 - Enhanced chest X-ray resolution by **3x** using **SRGAN** and **transfer learning**, achieving superior PSNR and SSIM scores. **(IDCIoT - 2024)**
 - Applications include telemedicine and diagnostic imaging.

PROJECTS

- **TopPizza:** (↗) | ↗
 - Designed and developed a full-stack pizza ordering website using **React** (frontend) and **Node.js with SQLite** (backend).
 - Reduced the back-end **cold start time by 98%**, from **3 minutes to 3 seconds**, improving user experience.
 - Developed **RESTful APIs** using **Fastify** and **SQLite**, handling order management, pizza listings, and user sessions.
 - Deployed the backend on **Render** and the frontend on **Netlify**, optimizing for a seamless and cost-effective deployment.
- **TwitterSpacesAiBot (Python):** (↗)
 - Developed an automated bot to process **Twitter Spaces** audio content for **transcription and summary**.
 - Downloads audio with **twospace-dl**. Transcribes using AssemblyAI API
 - Summarizes content via **Ollama LLaMA2 model**. Tweets summaries using Tweepy.
 - Reducing manual effort, and enhanced accessibility and engagement with concise summaries of Twitter Spaces content.
- **OpenInApp iOS Application:** (↗)
 - Developed an iOS app with **tab bar navigation** to showcase links, courses, and user profiles.
 - Integrated **API** to display top/recent links, total clicks, and other metrics.
 - Implemented a **dynamic chart** to visualize monthly clicks data.

EDUCATION

- | | |
|--------------------------------------------------------------------------|----------------|
| ● Amrita Vishwa Vidyapeetham | Chennai, India |
| ● <i>Bachelor of Technology - Computer Science and Engineering (AIE)</i> | 2020 - 2024 |
| ● Narayana Junior College | CGPA: 8.9 |
| ● <i>Intermediate (HSE)</i> | 06/2020 |
| ● Krishnaveni High School | CGPA: 9.75 |
| ● <i>High School</i> | 06/2018 |

SKILLS SUMMARY

- **Languages:** Java, Python, Swift, javascript (Node.js), SQL
- **Frameworks:** Spring Boot, Express.js, SwiftUI, TensorFlow, Keras, Pandas, OpenCV, Flask
- **Tools:** Eclipse, Vs Code, MySQL, GIT, Docker, Postman, Jupyter Notebook, Kaggle, Colab, Matlab
- **Platforms:** AWS Cloud, Ubuntu, Windows
- **Key Skills:** Backend Development, API Design, Cloud Deployment, Natural Language Processing (NLP), Reinforcement Learning, Generative Adversarial Networks (GANs), Data Analytics

CERTIFICATIONS / ACHIEVEMENTS

- **AWS Academy Graduate - AWS Academy Cloud Architecting:** ↗
- **HackerRank Java (Basic):** ↗
- Achieved 5 star in Java problem solving in HackerRank ↗ :
- Achieved 5 star in SQL problem solving in HackerRank: ↗