Sai Ram Chetla

# Kent, Ohio | 330-906-9960 | chetlasairamjp@gmail.com | linkedin.com/in/sai-ram-chetla/

Experienced professional with 3+ years in diverse technical roles, adept in software development, machine learning, and embedded systems. Seeking new career opportunities to leverage expertise in delivering innovative projects and achieving an 87% image classification accuracy, optimizing GPT-3.5 for NLP, and deploying secure IoT firmware.

# Skills

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| Application Development | Dart, Kotlin, Flutter Widgets, State Management, UI/UX Design, Firebase Integration, Figma |
| Web Technologies | HTML, CSS, JavaScript, React.js, Angular, Node.js |
| Image Processing | Image Classification, Image Segmentation, Object Detection, OpenCV, PIL |
| Python | OOPS, NumPy, Pandas, Keras, Matplotlib, TensorFlow, PyTorch, SciPy, Scikit-learn |
| Machine Learning | Linear & Logistic regression, KNN, Decision tree and Random Forest, K-means, PCA, SVM, Hierarchical clustering |
| Generative AI | OpenAI API, GPT, DALL-E, Davinci, LangChain, Prompt Engineering, RAG, Fine Tuning, Llama 2, Vector Database, Wisper API, Transformers, Google PaLm |
| Databases | MySQL, PostgreSQL, MongoDB, SQLite, Redis, FirebaseDB |
| Cloud | Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform |

# Experience

## Elysium Analytics | Data Science Intern Aug 23- Present

## Developed innovative chatbot interface integrating Langchain, Google PaLM, Streamlit, and RAG technologies.

## Collaborated on optimizing GPT-3.5 for NLP tasks, surpassing industry benchmarks.

## Achieved 87% accuracy in image classification using CNN with MongoDB for efficient data storage.

## Implemented Natural Language to SQL (SqLite) project using OpenAI's text-davinci-002 API.

## Engineered Python REST Microservice with FastAPI, Docker, enhancing real-time data processing.

## Utilized AWS SageMaker to expedite end-to-end machine learning workflows, ensuring scalable deployment.

## Hyundai Mobis | Embedded Software Engineer Aug 21-Jul 22

## Implemented CAN/LIN protocols, utilized tools like CANalyzer, Bus Pirate for debugging in embedded systems ensuring robust data transmission.

## Proficient in SPI, I2C for microcontroller-peripheral device communication, ensuring efficient data exchange in embedded systems.

## Developed embedded apps using vendor-specific SDKs, adhering to MISRA C/C++ guidelines for reliability, safety, compliance in critical systems.

## Experienced in FreeRTOS, Git, IDEs (Eclipse, Visual Studio, Qt Creator), conducted unit tests, code analysis (SonarQube), UI development using Qt/QML for automotive embedded systems.

## Bartleby | Subject Matter Expert Jan 22-Aug 22

## Led as an expert in C, C++, Python, Java, offering guidance to teams, solving 1000+ complex challenges in algorithms, data structures, system design, and optimization, showcasing extensive software development proficiency.

## Zenindo | Intern July 20-June 21

# Developed a Flutter-based smart home app with cross-platform compatibility, leveraging Dart and integrating Google APIs (Maps, Firebase) for location-based services and device synchronization.

# Established efficient IoT device communication via MQTT, CoAP, Zigbee, and Z-Wave, ensuring secure messaging and local connectivity.

# Enabled voice-controlled interactions with Amazon Alexa, Google Assistant, integrating natural language processing (NLP), and speech recognition.

# Engineered secure IoT device firmware with Arduino, ESP32 microcontrollers, implementing TLS encryption, OTA updates, utilized Node-RED for automation, and BLE for proximity interactions.

# Projects

## Kent Connects – Social Media Website [Github Link](https://github.com/chetlasairam/KentConnects)

## Developed Kent Connects, a social website using HTML, CSS, JavaScript, and React.js for front-end, facilitating updates, events, and ride sharing for Kent users.

## Integrated Firebase SDK for Authentication, Realtime Database, and Cloud Firestore, ensuring secure user authentication and real-time content storage. Utilized Firebase Storage for efficient media handling.

## Implemented Git for version control, managed project versions, and tracked collaborative changes. Deployed via Netlify and Firebase CLI for scalability and smooth user experience.

## Husk – Chat App [Github Link](https://github.com/chetlasairam/husk)

## Developed and published an Android chat application using Flutter and hosted on the Google Play Store, featuring Firebase Cloud Messaging integration facilitated by Postman for prompt push notifications.

## Implemented robust state management within the Android app, ensuring streamlined data flow and UI updates.

## Incorporated ZegoCloud and Agora APIs for seamless video and voice calls, enhancing user engagement.

## Leveraged Firestore DB for efficient real-time message storage and retrieval, optimizing chat functionality for a smooth user experience.

## Face Mask Detection using Deep Learning [Github Link](https://github.com/chetlasairam/Face-Mask-Detection)

## Engineered a real-time system utilizing OpenCV for image processing and TensorFlow and PyTorch for CNN model training to detect mask-wearing individuals in public areas.

## Created a user-friendly web interface with Flask and Django, optimizing speed via NVIDIA CUDA for GPU acceleration in the face mask detection system.

## Get Dish App Design- App for college canteen [Figma Link](https://www.figma.com/file/Y8UQcX37xjbZFsmo1W1hnZ/get-dish-college?type=design&t=Jvye238tJmzBnRTx-6)

# Revolutionized college dining experience by crafting a student-friendly mobile app via Figma for convenient classroom food orders, driving a digital shift in canteen operations, emphasizing intuitive design for enhanced UI/UX, convenience, and efficiency.

# Education

## Kent State University , Kent, OH 2022-2023

Master of Science in Computer Science

## VNR Vignana Jyothi Institute of Engineering and Technology, India 2017-2021

Bachelor of Technology in Electronics and Communications (GPA: 8.5/10)

# Certifications

* Programming, Data Structures and Algorithms using Python [Certification Link](https://drive.google.com/file/d/1GSblydWQCCGR2B13_9GA0Iv0ays9AFKN/view)
* Virtual Internship by JP Morgan [Certification Link](https://drive.google.com/file/d/131eJ6CtZ-afI64j4p1RkNGz-tsJ5JjCI/view)
* Fundamentals of Generative AI [Certification Link](https://learn.microsoft.com/en-us/users/chetlasairam-8147/achievements/hy2zmqw8)
* Fundamentals of Azure Open AI service [Certification Link](https://learn.microsoft.com/en-us/users/chetlasairam-8147/achievements/cwry7qb9)