

# Naga Sai Tarun Ganesh Emadabathuni

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## Education

**Vellore Institute of Technology, Amaravathi, India**

*Dec 2021 – May 2025*

B.Tech. in Computer Science

GPA: 8.99/10

Relevant Coursework: Data Structures, Software Engineering, Artificial Intelligence, Machine Learning

**Sri Chaitanya College, Guntur, India**

*Jun 2019 – Aug 2021*

Intermediate Education

Grade : 973/1000

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## Skills

**Programming Languages:** Python, Java, JavaScript, SQL

**Frameworks:** ReactJS, NodeJS, ExpressJS, Spring Boot, Hibernate, Flask

**Libraries:** Numpy, Pandas, Matplotlib, Tensorflow, PyGame

**Tools:** Git, VS Code, IntelliJ, Postman, Maven, Eclipse

**Databases:** MySQL, MongoDB, SQLite, JDBC

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## Work Experience

**SmartBridge**, Machine Learning Extern

*Aug 2023 – Nov 2023*

- Acquired hands-on knowledge of machine learning and deep learning (ANN, CNN, RNN) through self-study and projects, applying models to solve real-world problems.
- Developed and optimized machine learning models in Python and TensorFlow, analyzing datasets to extract insights and boosting predictive accuracy by 60%.
- Executed an image captioning project, integrating image recognition models and achieving high accuracy in generating captions.

**IntrainTech**, Data Analyst Intern

*Oct 2023 – Nov 2023*

- Learned skills in Excel and Power BI for data visualization and dashboard creation.
- Enhanced knowledge of data cleaning, manipulation, and statistical analysis using Power BI and Advanced Excel.
- Delivered a COVID-19 data tracker project that enhanced data visualization techniques, resulting in clearer reporting and improved transparency for stakeholders by highlighting key trends in real time.

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## Academic Projects

**Java Personal Expense Tracker**

*Jan 2025 – Feb 2025*

- Designed a Java-based personal finance tracker with both console and Swing GUI interfaces for managing budgets and tracking expenses.
- Implemented expense categorization and reporting using Java Streams, Enums, and HTML-based GUI reports.
- Applied OOP principles and dependency injection to design a modular backend ensuring flexible and accurate user interaction.

**Predictive Modeling for Epidemic Outbreaks**

*Aug 2024 – Dec 2024*

- Engineered Bidirectional LSTM, Transformer, and GRU models to forecast COVID-19 cases using a Kaggle dataset of 184k+ entries.
- Preprocessed large-scale time series data with normalization, rolling averages, and feature engineering to improve accuracy.
- Evaluated models with RMSE, MAE, and  $R^2$ , achieving best performance with Bidirectional LSTM and visualizing results interactively.

**Hand Gesture Recognition**

*Jan 2022 – March 2022*

- Built a Pygame-based application to recognize gestures drawn on a grid with a custom user interface for interaction and visualization.
- Applied cosine similarity to match user-drawn gestures with saved templates, improving recognition accuracy.
- Implemented save, load, and clear features to manage and test different gestures efficiently within the app.

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## Certifications & Achievements

- Earned Google Developers SmartBridge AI-ML Certification, showcasing skills in AI/ML and achieving a 90% accuracy rate in the developed predictive models during the internship – [Link](#).
- Secured NERD (DSA using Java) certification from VIT-AP – [Link](#).
- Attained 5-star rating in Java on HackerRank – [Link](#).
- Solved 300+ problems on LeetCode and GeeksforGeeks, demonstrating strong coding and algorithmic skills.