

# HITESH REDDY BUEREDDY

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## Skills and Frameworks

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**Software Skills:** DataStructure & Algorithms, Django, REST API's, Github, Dockers, Spark, AWS, PostgreSQL  
**Cloud/Devops:** AWS (EC2, lambda, S3, RDS), Docker, CI/CD Pipeline (Jenkins, GitHub Actions)  
**Languages:** Python, C++, C, Java, HTML, CSS, JavaScript, R, MySQL, Arduino, GIT, Linux  
**Technologies/Tools:** React, Notion, JIRA, Postman, Computer Vision, Informatica, StarUML, React Js, Docker, Jupyter Notebook, Visual Studio Code, Unified Testing Automata, Slicer 3D, Insomnia, GitHub, MongoDB, Spark.  
**Machine learning & DL:** Tensorflow, CNN, Transformer, LSTM, NeuralNetworks, Optimization& Evaluation techniques.

## Experience

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**Backend AI Developer Intern** | *Cognute* **January 2025 - Present**

- **Designed and integrated** a full-stack web application using **React (frontend)** and **FastAPI (backend)**, enabling seamless and efficient data flow.
- **Optimized FastAPI** endpoints and **PostgreSQL** database queries, achieving a **30% reduction** in API response times
- **Implemented** secure authentication and authorization using **JWT** and **role-based access control (RBAC)** to protect API endpoints and manage user sessions.
- Developed modular and reusable **React components**, improving code maintainability and **enhancing state management**.
- Worked with the **LLaMA 3.3 model**, implemented **custom function calling** to extend LLaMA's capabilities, enabling it to **perform dynamic tasks** and interact with external APIs.
- **Currently leveraging LangGraph** to build structured and **dynamic agent workflows** for advanced conversational AI use cases.

**Software Developer** | *Emerging Computer Arena (ECA)* **September 2022 - August 2023**

- Developed a **responsive web application** with **React.js (frontend)** & **Django REST API (backend)**, improving **page load times by 40%**.
- Optimized **database queries & API endpoints**, reducing response times by **30%**.
- Deployed the application using **Docker & Nginx**, ensuring **99.9% uptime** and seamless frontend-backend integration.

## Education

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**New Jersey Institute of Technology** **September 2023 – May 2025**  
Master of Science in Computer Science (**4/4 CGPA**) New Jersey, USA

**Sreenidhi Institute of Science and Technology** **July 2019 – June 2023**  
Bachelor of Science in Computer Science (**3.51/4 CGPA**) Telangana, India

## Projects

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**TimeFlexTrader** | *Transformer, LSTM, NeuralNetwork* **September 2024**

- Developed **LSTM & Transformer** models for stock price prediction (**96% R<sup>2</sup>**, low RMSE).
- Implemented **rolling statistics & volatility** metrics to enhance forecasts.
- Implemented Software Development Life Cycle

**Little Lemon Website** | *ReactJS, Django, REST API* **January 2024**

- Built a full-stack restaurant app using **ReactJS & Django**, enabling reservations & menu browsing.
- Implemented user authentication and optimized **UI with React Hooks & Context API**.

**Cardiopathie** | *CNN, Image Processing* **February 2023**

- Developed a **U-Net-based segmentation model** for cardiac CT (**87.63% Dice Score**).
- Optimized accuracy using learning rate scheduling, dropout, and handled large-scale medical imaging (NIFTI).

**Agriprotech** | *CNN, Flask, HTML, Jupyter Notebook* **April 2022**

- Built a **CNN model** for plant disease detection (**89.9% accuracy**).
- Integrated it into a **Flask web app** for real-time disease diagnosis & treatment suggestions.

## Certifications

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- AWS Cloud Foundation by Amazon Web Services Training and Certification
- Meta Full Stack Engineer Certificate by Meta
- AWS Machine learning Foundations by Amazon Web Services Training and Certification
- Machine Learning A-Z™: Hands-On Python & R In Data Science by Kirill Eremenko
- Neural Networks and deep learning by DeepLearning.AI