Bala Subramanyam Garikapati

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Education

Masters of Science - Northern Arizona University | Information Technology

2023 - 2025
GPA: **4.0**

Experience

- **Graduate Teaching Assistant**
  - Assisted in instructing **front-end and back-end web development**, covering **HTML, CSS, JavaScript and server-side frameworks** to enhance students technical proficiency.
  - Provided hands-on guidance in **debugging, API integration, database management and performance optimization** for web applications.
  - Assessed assignments and projects, ensuring compliance with industry best practices, security protocols and scalable development principles.
- **Cloud Internship & Cloud Support Engineer at LTIMindtree**
  - Assisted in deploying managing and troubleshooting **cloud infrastructure** on platforms like AWS ensuring high availability and performance.
  - Provided **technical support and issue resolution** for cloud-based applications, optimizing resource utilization and system reliability.
  - Collaborated with cross-functional teams to implement **automation, monitoring, and security best practices** in cloud environments.

Skills Summary

- **Languages** : Java, C++, C, Python, HTML, CSS, JavaScript, PHP.
- **Libraries**, **Frameworks**: NodeJS**,** jQuery, AngularJS, Spring.
- **Tools and Software**: Git, JIRA, VS Code
- **Cloud and Machine Learning:** AWS, Azure Fundamentals, ML (Supervised ML)
- **Database:** MySQL, PostgreSQL, MongoDB.
- **Subjects**: Web Technologies, Data Structures and Algorithms, Object-Oriented-Programming (OOPS), Software Development Life Cycle (SDLC), Operating System**,** Database Management System, Design Studio.

Projects

- **Crop Prediction Using Supervised Machine Learning** :- ***Python, Pandas, NumPy, Matplotlib, Decision Tree***
  - Developed a crop prediction system utilizing **supervised machine learning algorithms** to predict optimal crop yields with **98% accuracy**.
  - Employed **data preprocessing**, **feature engineering** and **model evaluation** techniques to enhance the system's predictive power.
  - Enabled farmers to make data-driven decisions for **crop selection**, improving yield and sustainability.

- **CarHub – Used Car E-commerce Platform**:- ***Html, CSS, PHP, JavaScript, NodeJS, MongoDB***
  - Designed and deployed a dynamic **e-commerce platform** for browsing and purchasing used cars, with a user-friendly interface and seamless navigation.
  - Implemented an **intuitive admin panel** for easy management of car listings, enabling CRUD (Create, Read, Update, Delete) operations on data.
  - Utilized **MongoDB** for efficient data storage and **Node.js** for backend server development to ensure smooth functionality and scalability.

- **Cloud-Based To-Do List Application** :- ***AWS, DynamoDB, Lambda and API Gateway***
  - Built a **cloud-based To-Do List application** with a backend hosted on **AWS Lambda** and **API Gateway**, allowing users to add, edit, and delete tasks.
  - Utilized AWS DynamoDB to store user tasks and ensure fast, scalable data retrieval.
  - Implemented simple user authentication and data persistence, ensuring a smooth user experience.

Accomplishments

- Conducted research on an **AI-powered intrusion detection system** for **cloud environments**, focusing on **machine learning model development**, **real-time anomaly detection** and **automated security responses** to enhance cloud network security.
- Published and presented the research paper titled **"Crop Prediction Using Supervised Machine Learning"** at **ICRAET 2023** on 19th May 2023.
- **Gold Medalist (**Chess Championship**)** of Andhra Pradesh, India.