

# Prudvikar Donthagani

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## Summary

**Software Engineer** with hands-on experience in **backend service development**, **cloud infrastructure** and **CI/CD automation**. Proficient in **Python, Java, and C++**, with a strong foundation in **system design**, **data structures**, and **security compliance**. Skilled in building **scalable, reliable, and customer-centric services**, with cloud deployment experience using **OpenStack** and **AWS**.

## Professional Experience

### TATA CONSULTANCY SERVICES [Hyderabad, India]- System Engineer (06/2021- 12/2023)

- **Awarded "Star of the Month"** for implementation of OpenStack components **NOVA** and **KEYSTONE** in a production-grade cloud architecture.
- Designed and developed scalable backend services using **Python** and **Java**, achieving **95%+** system uptime ensuring infrastructure reliability.
- Optimized complex **SQL queries** using indexing strategies, reducing database **latency by 50%** on high-traffic endpoints.
- Resolved **75+ issues**, including **cloud integration** and **customer requests**, while maintaining documentation for **code/design reviews**.
- Automated **CI/CD pipelines** using **Jenkins** and **GitLab**, cutting manual deployment errors by **90%** and improving deployment time by **60%**.
- Contributed to system architecture of a high-availability enterprise application supporting over **2M+ users**, ensuring scalability and performance.

### Movidu Technology Pvt Ltd [Hyderabad, India]- Internship as Machine learning Intern (01/2020-06/2020)

- Engineered **ML models** using **Scikit-learn**, **TensorFlow**, focusing on classification, regression, and clustering tasks.
- Applied **Random Forest, SVM, KNN**, achieving **80-90% accuracy** through cross-validation and hyperparameter tuning.
- Optimized **10k+ rows of data** with Pandas and NumPy, refining feature engineering and handling missing values.
- Designed insightful **visualizations** using **Matplotlib** and **Seaborn**, leveraging confusion matrices and ROC curves for enhanced analysis.

## Education

### University of Central Missouri - Masters in computer science (01/2024 -05/2025)

Gpa: 4/4

**Awards:** Graduate Student Achievement Award

**Relevant Coursework:** Adv App Programming in Python, Java, Machine Learning, NoSQL, Intro to Information Assurance, Compiler design, Adv Data Visualization, Adv Algorithms, Adv Operating Systems, and Adv Computer Networking & Security

### Jntuh College of Engineering - B. Tech in Computer Science (7/2017 - 6/2021)

Cgpa: 3.4/4

**Relevant Coursework:** Programming in C, CPP, Java, Python, Design and Analysis of Algorithms, DBMS, OS, Cloud Computing

## Technical Projects

### URL Shortener Web App [[GitHub](#)] [[Live Demo](#)]

- Built a full-stack URL shortener using **FastAPI** and **SQLite**, supporting dynamic redirect links and persistent analytics.
- Implemented **REST APIs** to generate unique short codes and redirect users, with IP-based click tracking and count logging.
- Designed a responsive frontend using vanilla **JS** and **HTML/CSS**, enabling users to shorten links and view usage analytics.
- Deployed the app on Render with automated **GitHub CI/CD**, achieving public access via a custom subdomain.

### Tic Tac Toe Game Development[[GitHub](#)]

- Developed a Python-based Tic Tac Toe game with fully functional win conditions and **AI opponent** using the **Minimax** algorithm.
- Designed and implemented an **intuitive graphical user interface** to enhance player interaction and experience.
- Enabled **multiple play modes** (AI vs. Player, Player vs. Player), increasing gameplay flexibility and user engagement.

### Speech Emotion Recognition

- Engineered a real-time machine learning model to classify speaker emotion and gender from live audio input.
- Extracted and optimized key audio features (MFCCs, pitch, tone) to improve classification performance.
- Integrated the model with a live microphone system for seamless, real-time emotion detection in varied environments.

## Technical skills

- **Programming Languages:** Python, Java, C, C++.
- **Cloud & DevOps:** OpenStack, Docker, Kubernetes, Jenkins, CI/CD Pipelines, Ansible, Terraform, Git, Gerrit, REST APIs
- **Databases:** SQL, PostgreSQL, MongoDB, Query Optimization, Indexing
- **Networking:** Network Security, SSL/TLS, TCP/IP, Subnetting, DNS, DHCP, Firewalls, VPN
- **Project Management & Collaboration:** Jira, Agile, Microsoft Teams, Scrum
- **System Design & Software Engineering:** Microservices, High Availability Systems, OOPs, Scalability, Load Balancing, Caching.

## Achievements

- **Ranked Top 0.32%** in TCS **CODEVITA** (world's largest Coding Contest) – 800th out of 250,000 participants.
- Solved **1,000+ coding problems** across **Leetcode**, **HackerRank**, and **GeeksforGeeks**.
- Earned **6-star rating** in Algorithmic Thinking and **5-star in Python** on HackerRank.
- Honored with the **Graduate Student Achievement Award** at **UCM** for Academic excellence outstanding contributions.
- Spearheaded and managed a **National-level College Fest** at **JNTU**, leading a team of 30 professionals.

## Leadership & Extracurricular Activities

- **Festival Coordinator (Crescence 2020)** – Directed a **30-member team** in organizing a National-Level Technical Symposium.
- **Workshop Coordinator** – Hosted a **two-day robotics workshop** at JNTU.