

# Sai Veerabhadra Medavarapu

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## PROFESSIONAL SUMMARY

Innovative Software Engineer with extensive Python development experience and proven expertise in system design, agile methodologies, and full-stack development. Skilled in designing scalable solutions and implementing cutting-edge technologies to solve complex problems. Demonstrates exceptional analytical thinking and collaborative leadership, with a passion for continuous learning and innovation in technology.

## TECHNICAL SKILLS

- **Programming Languages:** Python (Advanced), Java (Intermediate), SQL, JavaScript
- **Frameworks/Libraries:** Django, Flask, React, NumPy, Pandas, TensorFlow, PyTorch
- **Cloud & DevOps:** AWS, Docker, CI/CD, Git, GitHub
- **Methodologies:** Agile, Scrum, Test-Driven Development, SDLC
- **Database:** PostgreSQL, MongoDB, MySQL
- **Other Tools:** JIRA, Confluence, Linux/Unix

## PROFESSIONAL EXPERIENCE

### SOFTWARE ENGINEER (PYTHON DEVELOPER)

Denken Solutions Inc. | Jan 2024 - Present

- Led the development of scalable microservices architecture using Python that improved system performance by 40%.
- Designed and implemented RESTful APIs that handle over 1,000 requests per second with 99.9% uptime. Collaborated with cross-functional teams to deliver new features using Agile methodologies, completing sprints with 95% success rate.
- Optimized database queries resulting in 60% reduction in response time for critical business operations. Implemented automated testing frameworks that increase code coverage to 90% and reduced bug incidents by 35%.

### GRADUATE TEACHING ASSISTANT

SUNY New Paltz | May 2023 - Dec 2023

- Instructed undergraduate students in advanced Python programming concepts and data structures. Developed comprehensive teaching materials and coding exercises that increased student proficiency by 75%.
- Created and graded programming assignments focused on algorithm optimization and system design. Conducted code reviews and provided detailed feedback, improving code quality by 50%.
- Collaborated with professors to design curriculum that integrated real-world software engineering practices.

### SOFTWARE DEVELOPER INTERN

Sanridge Pvt Ltd | Jan 2020 - May 2022

- Contributed to the development of enterprise-level applications using Python and Java. Designed and implemented database schemas that improved data retrieval efficiency by 30%.
- Developed automated data processing pipelines that reduced manual work by 80%. Participated in all phases of the SDLC, from requirements gathering to deployment and maintenance.
- Created comprehensive documentation for codebases to facilitate knowledge transfer. Implemented CI/CD pipelines that reduced deployment time by 70%.

## EDUCATION

Master of Science in Computer Science SUNY New Paltz | 2022 - 2024

- GPA: 3.72/4.0
- Specialization: Machine Learning and Artificial Intelligence

## RESEARCH & PUBLICATIONS

Flower Classification and Identification using Deep Learning Methodologies

- Implemented and compared various CNN architectures achieving 97% classification accuracy. Developed custom image processing techniques that improved model performance by 15%. Published in the International Journal of IEEE. Presented findings at two national conferences at Amity University and KL University.

## PROJECTS

Financial Data Analysis Platform

- Developed a full-stack application using Python, Django, and React that processes financial market data. Implemented machine learning algorithms to predict market trends with 85% accuracy.
- Integrated with multiple financial APIs to provide real-time data visualization. Deployed on AWS using containerization for scalability.

Automated Trading System

- Created a Python-based algorithmic trading system with backtesting capabilities. Implemented various trading strategies using statistical models and machine learning.
- Designed a dashboard for real-time performance monitoring and risk assessment. Achieved 25% better returns than benchmark indices in backtesting scenarios.