NARENDRA KHATPE

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Master of Science in Computer Science, GPA: 3.48 May 2025
Coursework: Design Patterns, Algorithms, Web Programming, Social Media Data Science Pipeline

Savitribai Phule Pune University
Bachelor of Engineering in Computer Engineering, GPA: 3.56 April 2020
Coursework: High Performance Computing, Algorithms, Cloud Computing, Machine Learning

TECHNICAL SKILLS

Languages	Python, Bash/Shell Script, Java, C, C++, SQL, JavaScript, TypeScript, , HTML, CSS
Frameworks	Agile,CI/CD, Git, Django, Docker, Kubernetes, Flask, React, RESTful APIs, OOP
Cloud & Databases	AWS (EC2, S3, Lambda), Azure, Google Cloud, MySQL, PostgreSQL, MongoDB, Oracle
Tools	Jenkins, Terraform, ServiceNow, Zabbix, Ansible, Nginx, Vagrant, Prometheus, Grafana, JIRA
Additional	Japanese (intermediate)

PROFESSIONAL EXPERIENCE

Tata Consultancy Services, **DevOps Engineer** Jul 2022 – Jun 2023

- Designed and maintained robust **CI/CD** pipelines using **Jenkins** and **XebiaLabs Release**, ensuring deployment of over 20 microservices that powered core banking operations for a major financial institution
- Developed **Bash** and **Python scripts** to automate build, test, and deployment workflows, improving release reliability and eliminated manual intervention across the CI/CD pipelines
- Managed observability tools like **Azure Monitor** and **Zabbix**; created runbooks and technical documentation to support incident response, system recovery, and team-wide operational readiness
- Improved release frequency by 30% and reduced post-deployment incidents by 25% through integrated automation, testing coverage, and standardized deployment pipelines

Tata Consultancy Services, **Systems Engineer** Mar 2021 – Jul 2022

- Provided **bilingual** technical support for Japanese enterprise clients, resolving infrastructure and application issues through real-time coordination with global development and operations teams
- Monitored Japanese enterprise systems like **JP1** and **Datadog** through **ServiceNow**; performed daily tasks such as patching, backup verification, data validation and log analysis to maintain availability and regulatory compliance
- Mentored a Tier-2 support team of 7 engineers and developed internal Standard Operating Procedures (SOPs) and troubleshooting guides, reducing onboarding time and improving operational consistency across the support organization
- Achieved a 35% improvement in resolution time and maintained zero client escalations across all business-critical platforms and production environments

PROJECT EXPERIENCE

CourseMatch: Course Assignment Optimization System, Python Developer Jun 2024 – Present
Technologies: Python, ILP, Pandas, Machine Learning Algorithms

- Collaborate with Graduate Director Prof. Lander and Prof. Sikdar to solve an **integer linear programming** problem for optimizing course assignments for 1,000+ students for the Watson College's School of Computing
- Encoded hard and soft constraints to balance student preferences and department capacities, and integrated **machine learning algorithms** to predict course demand and improve how students are matched to their preferred courses

Meme Trend Analysis System, Social Media Data Science Pipeline Aug 2024 – Dec 2024
Technologies: Python, MongoDB, Flask, NLP

- Built a **scalable system** to analyze 1M+ memes from Reddit and 4chan by extracting metadata and user comments, enabling trend analysis before and after a major political election event
- Implemented a **sentiment analysis** pipeline with 95% accuracy to process 4,000+ daily comments, and developed a dashboard to visualize meme propagation and emerging trends across online communities

Advanced Image Editor, Independent Project Mar 2024 – May 2024
Technologies: Python, Tkinter, OpenCV

- Developed a desktop image editor with 15+ filters and transformations using **OpenCV** and a custom **Tkinter** interface
- Redesigned and optimized **image processing algorithms** to handle high-resolution images more efficiently, achieving over 40% faster processing times compared to standard OpenCV library functions

AI College Recommendation System, Final Year Project Jun 2019 – Mar 2020
Technologies: Java, JSP, MySQL, Machine Learning Algorithms

- Built a college recommendation platform using **collaborative** and **content-based filtering** with 87% accuracy
- Developed backend using **JSP** and **MySQL**, and published findings in IJIRSET journal as part of academic research