VEDANT PATIL

+1 (614)-589-2520 | patil.343@osu.edu | [LinkedIn](#) | [Github](#) | Columbus, Ohio

EDUCATION

The Ohio State University — Columbus, OH
Master of Science in Computer Science and Engineering — *Aug. 2024 – Ongoing*

University Of Mumbai - (Vidyalankar Institute of Technology) — Mumbai, India
Bachelors of Engineering in Information Technology — *Aug. 2020 – Jun 2024*

TECHNICAL SKILLS

Cloud Platforms: AWS, Microsoft Azure, Jetstream2
Container Orchestration: Kubernetes (K8s, K3s), Docker, Podman, Helm, Container Registry
Monitoring & Analytics: Prometheus, Grafana, Power BI, Loki
DevOps & Automation: Ansible, Terraform, Puppet, Jenkins, CI/CD Pipelines, IaaC, Shell Scripting, Github Actions
Programming Language: Python, JavaScript, C++, Bash, HTML5, CSS3
Frameworks & Libraries: React, Django, Node.js, REST APIs,OpenCV, FastAPI, React Native
Databases: MySQL, MongoDB, Elasticsearch, Firebase, NoSQL
Development Tools: Git, GitHub Actions, Postman, Visual Studio Code, Linux Administration

EXPERIENCE

Graduate Research Associate — Jan. 2025 – Ongoing
Ohio State University, **Research Advisor: Dr. Christopher Stewart** — *Columbus, OH*
- Led cross-functional integration team to develop and deploy AI-based applications on resource-constrained edge devices, enabling seamless operation across distributed computing environments in agriculture and wildlife ecology domains.
- Accelerated edge application startup time by 68x through optimized caching and resource allocation, reducing deployment time from 12 minutes to 11 seconds
- Architected and implemented scalable edge-to-cloud microservice infrastructure using Kubernetes (K3s, K8s) to orchestrate data flow between edge devices and cloud systems, ensuring consistent performance across varying network conditions
- Developed robust task management pipelines for industrial drone fleets, achieving 95% autonomous operation success rate in offline conditions
- Designed distributed computing frameworks for edge-to-cloud continuum, optimizing data processing workflows and reducing latency in time-critical agricultural and ecological monitoring applications
- Modernized development infrastructure by migrating legacy custom Git server workloads to GitHub, streamlining collaborative development processes and improving code deployment efficiency

Clouds and Devops Intern - go.osu.edu/healiom — Apr. 2024 – Jul. 2024
Healiom — *San Mateo, CA (Remote)*
- Configured and managed AWS cloud infrastructure including container orchestration platforms, container registries, network architecture, and identity management systems to support secure application deployments
- Implemented multi-stage Dockerization techniques for both AI and non-AI applications, reducing container image sizes by 25% and optimizing resource usage in production environments
- Developed Caddy server configurations for secure web traffic handling and implemented GitHub Actions workflows for continuous integration and delivery, decreasing deployment time by 20%

ACADEMIC PROJECTS

Grievance Redressal System - go.osu.edu/sih-phantom682 — Aug. 2022 – Aug. 2023
Smart India Hackathon- **Ministry of Education, India** — *IIT-Dhanbad, India*
- Developed comprehensive IT-enabled grievance portal for the Ministry of Labor and Employment, India, leveraging React.js, Node.js, MongoDB, and Python-based machine learning algorithms to address nationwide employment challenges
- Streamlined grievance submission and tracking workflows through database optimization and automated processes, reducing resolution time by 40% while significantly enhancing user experience
- Implemented real-time data processing and automated reporting dashboards with integrated data visualization components, improving administrative efficiency and decision-making capabilities for government officials

AWARDS AND CERTIFICATIONS

- **Alpha Level - Microsoft Student Ambassador** (December 2023 – December 2024) - go.osu.edu/vp-mlsa
- **Postman API** Fundamental Student Expert. - go.osu.edu/postman-api-expert
- **Smart India Hackathon** 2022 Finalist. - go.osu.edu/sih- certificate
- Published Research Paper on **"Course Evaluation and Improvement: Enhancing Higher Education Through Sentiment Analysis in Course Rating Systems"** at International Journal for Multidisciplinary Research (IJFMR).