

Kaustubh Uday Kulkarni

(612) 513-6907 | kukulkar@asu.edu | kaustubhuk8.github.io | github.com/kaustubhuk8 |
linkedin.com/in/kaustubh-u-kulkarni

EDUCATION

Master of Science, Computer Science

Arizona State University

August 2025

Tempe

Bachelor of Engineering, Computer Science

PES Institute of Technology

August 2021

Bengaluru

PROFESSIONAL EXPERIENCE

Software Developer

Comono India

August 2021 - May 2023

Bengaluru

- Designed and developed a specialized web-based platform using React and JavaScript, later transitioning to Remix and TypeScript for enhanced performance and user experience.
- Mentored junior developers in object-oriented design principles and code review practices, fostering a collaborative and educational environment.
- Integrated and maintained APIs using Django-rest Framework and MySQL, with a focus on efficient data flow and decoupling of components.
- Integrated Docker with CI/CD pipelines using GitHub Actions, enabling continuous deployment with zero downtime, enhancing system reliability and deployment speed by 30%.

Student Intern

Global Discovery Academy

December 2020 - April 2021

Bengaluru

- Developed automated workflows and data migration processes using bash scripts, overseeing seamless data transfer across multiple schools.
- Built and deployed Kubernetes clusters for container orchestration, managing multiple microservices, improving scalability, and automating application deployment.
- Played a key role in MySQL relational database design, including attribute selection, data refinement, model selection, rigorous testing, and effective visualization.
- Collaborated with Web Services team to devise APIs leveraging Django-rest Framework in conjunction with MySQL

PUBLICATIONS

Metaheuristic Optimization of Neural Networks for Phishing Detection

PESIT Research Center

August 2020 - August 2021

Bengaluru

- Proposed a Neural Network model, accurately classifying websites as legitimate/phishing. Applied data preprocessing methodologies, such as SMOTE oversampling and PCA, to enhance data quality and optimize its readiness for analysis
- Applied two Metaheuristic Optimization Algorithms like Salp Swarm and Emperor Penguin Algorithms to optimize and better performance of model
- Compared to classification models like logistic regression etc., achieved a reduction in computation time by 55%

ACADEMIC PROJECTS

Elastic Cloud Video Analysis Application

Web Applications

January 2024 – April 2024

Tempe

- Developed a serverless video analysis pipeline using Docker, AWS Lambda, EC2, S3 and SQS.
- Architected a multi-stage system for video-splitting and face-recognition with auto-scaling capabilities.
- Optimized Docker images for both EC2 and Lambda, enhancing performance and scalability.
- Processed 100 concurrent video requests within 300 seconds; handled image recognition efficiently with EC2 containerization.
- Utilized multi-stage Docker builds to reduce image sizes by 60%, improving deployment speed and reducing costs.

SKILLS

Programming Languages: JavaScript, Python, TypeScript, HTML, CSS, C, C++

Frameworks and Tools: Docker, Kubernetes, React, Next.js, Django, GIT, AWS, Supabase, TailwindCss