Sakshi Komal Patil

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EDUCATION

Northeastern University, Boston, MA — Expected May 2024
Candidate for a Master of Science in Computer Science — GPA: 3.86/4.0
Relevant Courses: Algorithms, Programming Design Paradigm, Database Management Systems, Machine Learning

Sardar Patel Institute of Technology, Mumbai, India — July 2022
Bachelor of Technology in Computer Engineering — GPA: 8.9/10.0
Relevant Courses: Object Oriented Programming, Data Structures, Software Engineering, Data Science

TECHNICAL SKILLS

Languages	Python, Java, C, C++, C#, R, PHP, JavaScript, Typescript, HTML, CSS, Swift
Database Technologies	SQL, MongoDB, Elasticsearch, Firebase, MySQL, PostgreSQL
Libraries/Frameworks	HTML, CSS, PHP, React.js, Node.js, Express.js, ASP.NET
Tools	cPanel, PhpMyAdmin, VS Code, Marvel, Docker, Docker hub, JUnit, Selenium, Ansible, Azure DevOps
Cloud Technologies	Google Cloud Platform (GCP), AWS, Microsoft Azure, Snowflake, Kubernetes Clusters, ServiceNow
Hands-on skills	Agile, Scrum, Git, Web Development, Database management, OOP

WORK EXPERIENCE

Lead Teaching Assistant, Northeastern University, Boston, MA — September 2022 - June 2023

- Conducted thorough workload assessments, identifying opportunities for optimization, and executed groundbreaking operational processes, leading to an impressive **40% surge** in productivity
- Demonstrated exceptional commitment by closely supervising and aiding a **team of 13** fellow Teaching Assistants
- Addressed student inquiries and concerns from a diverse student cohort of **200+ students** during office hours for the **CS 3200: Database Design course.**

Software Research Intern, Sardar Patel Institute of Technology, Mumbai, India — January 2022 - May 2022

- Devised an end-to-end pipeline harnessing **WGAN** architecture for the **categorization of genuine and counterfeit images**
- Attained a remarkable **93% precision** in distinguishing authentic from forged images via an innovative integration of **CNN and discriminator models**
- Collaborated with a cross-functional team to streamline the pipeline, **fine-tuning hyperparameters**, and venture into uncharted territories to expand the realm of **image generation and classification**

Software Developer, Ask in City, India — May 2020 - July 2020

- Successfully executed the "Manufacturer Worlds" project, tailored for a prominent brand management company in India
- Managed an extensive database encompassing more than 100 sellers and 350 listings, showcasing effective data **handling and organization** capabilities.
- Enhanced the platform's functionality and revenue streams by seamlessly integrating **a secure payment gateway**, yielding a substantial surge in successful transactions

PROJECTS

Autonomous Robot Navigation (Python, Pathfinding Algorithms) — January 2023 - April 2023

- Investigated and assessed diverse pathfinding algorithms, including **A*, Bellman Ford, and Dijkstra's**, to determine the most **cost-effective path** for autonomous robot navigation within complex, obstacle-laden environments
- Constructed an environment model using **a grid-based framework**, strategically attributing values to cells to accurately represent the presence of obstacles within the simulated environment
- Orchestrated an intricate comparative analysis, evaluating algorithmic performance across varied scenarios and achieving a **90% success rate** for obstacle avoidance

Stock Portfolio Management (Java, Swing) — September 2022 - December 2022

- Engineered a desktop application using Java programming language and adhering to the **MVC design** pattern
- Devised an interactive platform enabling **real-time oversight of stock portfolios**, empowering users with the ability to track investments and execute informed choices
- Integrated **Alpha vantage API**, providing real-time stock data to users, enhancing reliability, and reducing **data retrieval latency by 20%** for improved portfolio management

Prioritization of Districts for COVID-19 Vaccine Administration (Python, Machine Learning) — January 2021 - May 2021

- Led a project to **enhance vaccination efficiency** by implementing a district-based priority system, resulting in streamlined vaccine administration
- Developed a highly accurate ML model (**96% accuracy**) for district prioritization in vaccination distribution
- Authored **an award-winning research paper** accepted at the 2nd International E-Conference: Research Essential in Machine Learning and Computational Intelligence (ECREMLACI 2021)