Siddharth Samir Khachane

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EDUCATION

University of Southern California — Los Angeles, California

Master of Science in Computer Science — ***August 2024 - May 2026***

- GPA: 3.82/4
- Courses: Algorithms, Web Technologies, Natural Language Processing, Database Systems, Machine Learning.

PROFESSIONAL EXPERIENCE

Ultimate Kronos Group (UKG) — **January 2024 - July 2024**

Senior Software Engineer

- Developed a Messaging Framework in UKG DIMENSIONS (Workforce Management Application) facilitating smooth asynchronous communication between different services utilizing RabbitMQ, Java and Spring Boot.
- Spearheaded development of Resiliency Framework automating message persistence process in adverse scenarios and reducing time and efforts required to recover data by 80% than previous solution of manual persistence.

Ultimate Kronos Group (UKG) — **July 2022 - January 2024**

Software Engineer

- Implemented a Common Messaging Platform in UKG PRO (HRM application), providing a highly scalable method for communication between microservices utilizing Kafka.
- Applied encryption, compression and digital signatures on data using Java and Spring Boot.
- Designed unified monitoring dashboards on Grafana automating production monitoring process and reducing time to manually monitor by 50% on daily basis resulting in performance improvement.

PROJECTS

Word-Slayer | *React, Next.js, Vercel, Tailwind CSS* | GitHub | Live Demo

- Developed a fast-paced typing game where players defeat enemies by correctly typing displayed words under time pressure and varying difficulties.
- Implemented real-time combat mechanics with visual feedback, health bars, and approach animations.
- Created performance tracking system displaying WPM, accuracy, time, and total words typed.
- Built responsive UI with clean design using React and deployed on Vercel for instant access.

Collab-Canvas | *React, Node.js, Socket.io, MongoDB* | GitHub | Live Demo

- Created a real-time collaborative whiteboard application in React, Node.js, Socket.io, and MongoDB.
- Incorporated features including instant room creation, multi-user drawing synchronization, and persistent canvas states stored in MongoDB.
- Deployed full-stack application on Vercel and Render enabling seamless collaboration across devices.

Image Tampering Detection | *Neural Networks, Error Level Analysis* | Research Paper

- Trained a robust and effective model for image tampering detection utilizing a concatenated Neural Network model with Error Level Analysis with 98.58% accuracy.
- Published and co-authored a technical paper in the International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; Volume 11 Issue VII July 2023.

CERTIFICATIONS AND COURSES

- AWS Certified (Amazon Web Services) Developer Associate and Cloud Practitioner – **July 2024**
- Neural Networks and Deep Learning by Deeplearning.ai (Coursera) – **February 2021**
- Machine Learning (ML) by Stanford University (Coursera) – **April 2020**
- Analytical and Problem-solving skills: GRE Score (320/340) – **October 2023**

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, JavaScript, HTML, CSS, Node
- **Frameworks:** Spring Boot, React, Next.js, Pytorch | Agile, Distributed Systems, Backend, Front end
- **Technologies:** Kafka, RabbitMQ, Docker, Kubernetes, AWS, Grafana, GCP, Git, REST, Unit Testing
- **Data Management:** MySQL, MongoDB, Neo4j | Data Structures, Algorithm Design