Saurabh Kalelkar

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EDUCATION

Syracuse University, College of Engineering and Computer Science | Syracuse, NY *August 2022 – May 2024*
Master of Science, Computer Science ***GPA: 3.6/4.0***
- **Relevant Courses:** Operating Systems, Object Oriented Programming, Design and Analysis of Algorithms, Computer Architecture, Social Media Data Mining, Database Management, Cryptography, Applied Natural Language Processing.

Savitribai Phule Pune University, Modern College of Engineering | Pune, MH, India *August 2014 – June 2018*
Bachelor of Engineering, Computer Engineering ***GPA: 8.5/10.0***
- **Relevant Courses:** Data Structures, Software Engineering, Theory of Computation, Computer Networks.

TECHNICAL SKILLS

Fundamental Concepts:	Data Structures & Algorithms, OOP Concepts, Design Patterns, SDLC, REST APIs
Programming Languages:	Python, C++, Java, JavaScript, C, Shell Scripting
Web Development:	HTML5, CSS3, Express.js, React, Node.js, Bootstrap, Tailwind CSS
Databases:	Oracle, MongoDB, MySQL, PostgreSQL, MS SQL Server
Tools and Frameworks:	VS Code, IntelliJ, PyCharm, Git, Informatica, Jira, Spring Boot, Django

WORK EXPERIENCE

Tata Consultancy Services Pune, MH, India
System Engineer | *Python, Oracle, Shell Scripting, NumPy, Pandas, Git, Jira, Informatica* *October 2018 – April 2021*
- Spearheaded the development and refinement of automation testing framework using Python, enhancing performance by 25% through streamlined architecture and efficient resource utilization.
- Collaborated with cross-functional teams comprising of business analysts and developers to engineer strategic solutions in Banking & Financial Services domain across 5+ distinct business lines and ensured smooth project delivery to the client.
- Enhanced Quality Assurance efforts by performing manual testing across 10+ releases, as well as optimizing regression testing workflows for 5+ business lines, yielding a 20% faster release cycle and 25% fewer post-release defects.
- Designed and Implemented custom Python scripts for validation of Oracle tables populated by 10+ complex Informatica workflows, requiring a detailed analysis and replication of these workflows, ensuring data integrity and reliability.
- Slashed manual labour cost by 25% by developing and automating log parsing, handling ingestion of 10,000 flat files(CSV, XML, JSON), and generation of validation reports of reconciliation ensuring consistency between raw and processed data.
- Developed shell scripts that facilitated the automated transfer of validation reports from Unix systems to SAP S/4HANA, used by over 15 team members, streamlining data transmission and facilitating integration with ERP systems.
- Led Python training for 20+ colleagues, improving team proficiency by 40% and fostering collaborative learning.
- Employed Agile practices, improving team efficiency by 30% with unambiguous communication and sprint planning.

PROJECTS

Movies Review App | *Java, Spring Boot, React, MongoDB* *github.com/saurxbh/movies-review*
- Built a loosely-coupled full-stack web application using Java Spring Boot, React, and MongoDB by implementing RESTful APIs and encouraging separation of concerns. Optimized client-server communication reducing data latency by 20%.
- Utilized Axios for seamless HTTP requests between React and the Spring Boot backend, improving data fetching efficiency by 25% and ensuring robust API communication with error handling and response management.

Products Store | *MongoDB, Express.js, React, NodeJS* *github.com/saurxbh/products-store*
- Built a RESTful API with Express and Node.js, reducing API response times by 30% through efficient routing and error handling. Integrated MongoDB, optimizing data persistence by 25% using indexing and schema design.
- Managed asynchronous data flows between client and server, improving data synchronization speed by 20%. Ensured dynamic UI updates & smooth communication between client and server using React hooks and state management.

CRM Portal | *Python, Django, Bootstrap, MySQL* *github.com/saurxbh/crm-portal*
- Engineered a CRM web application, integrating Django's ORM to implement full CRUD operations for seamless customer data management. Leveraged Django's model-view-template (MVT) architecture, boosting efficiency by 30%.
- Configured Django's built-in admin panel by creating a superuser, granting secure access control to system administrators. Ensured scalable application deployment by using Django's authentication system to manage user roles and permissions.

Taste Tuner | *Python, Machine Learning (scikitlearn), EDA, Support Vector Machines*
- Utilized Natural Language Processing techniques on a dataset of 20,000 recipes to efficiently analyse unstructured data by introducing functionalities like recipe recommendations and summarisation, resulting in enhanced culinary insights.
- Implemented Support Vector Machines and Logistic Regression models for accurate prediction of recipes, achieving an F1 score of 70%, in order to enhance the recommendation system's precision.