Pratik Vijaykumar Satpute
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EDUCATION

Syracuse University - *College of Engineering & Computer Science, Syracuse, NY* August 2023 – May 2025
Master of Science, Computer Science **GPA: 3.9 / 4**
University of Mumbai - *Rajiv Gandhi Institute of Technology, Mumbai, India* July 2016 - October 2020
Bachelor of Engineering, Computer Engineering **GPA: 3.7 / 4**

WORK EXPERIENCE

Software Engineer, *Govsphere, Inc. – Syracuse, New York* January 2025 – Present
- Developing Next Gen Vital Apps, a cross-platform mobile healthcare application for monitoring vitals, recovery, and rehabilitation.
- Redesigning apps using the **UNO Platform** for **.NET** to enable cross-platform functionality and enhance user experience.
- Migrating systems from .NET 3.0 to .NET 8.0, improving scalability, performance, and maintainability.
- Utilizing **C#**, **MySQL Server, Entity Framework Core**, and **Azure DevOps** for full-stack development of scalable applications.

Software Engineer - Machine Learning, *iConsult Collaborative – Syracuse, New York* November 2024 – Present
- Collaborated with the City of Syracuse on a data-driven urban project to enhance traffic control and flood prediction using data from 1,500 sensors installed in traffic signals and near waterfalls.
- Optimized 20,000+ sensor data entries using **SQL** in **Azure Data Studio**, including cleaning and performance tuning.
- Built predictive models for traffic and waterflow forecasting (92% accuracy), improving urban planning.
- Developed front-end interfaces with **React** and APIs using **Node.js** and **Express.js**, integrating **Kafka** for real-time data streaming in predictive analytics.

Senior Software Engineer, *Zeus Learning – Mumbai, India* July 2020 - July 2023
- Built scalable **REST APIs** in **.NET Core** with **Microservices Architecture**, reducing errors by **30**%, enhancing system resilience.
- Developed responsive, user-centric front-end components with **Angular** and **JavaScript**, increasing user engagement by **25%**.
- Conducted stress tests with **dotTrace** and **JMeter**, resolving performance bottlenecks and boosting system efficiency by **40%**.
- Designed and optimized **SQL** database structures, creating high-performance **stored procedures** for bulk operations that enhanced processing speed, ensured data integrity, and boosted production efficiency by **4 times**.
- Streamlined feature estimations and sprint planning while coordinating efforts across **25+ sprints**, improving feature delivery efficiency by **15%**, driving timely project completion, and enabling smoother project execution with improved team productivity.

PROJECTS

Quantum/ Thinklink by School Specialty */ Angular, MongoDB, RabbitMQ, Redis, Docker, AWS, Azure* July 2020 - July 2023
- Led rostering module integration, enabling seamless onboarding of **2 million** users via **Single Sign-On (SSO).**
- Engineered a data transfer feature between CMS and LMS using **RabbitMQ**, reducing errors by **25%** and ensuring **data integrity**.
- Architected a **Redis** caching solution, reducing database usage by **50%** and enhancing system performance and response times.
- Designed and developed the Digital Teacher's Guide application from the ground up using **Angular** and **MongoDB**, creating custom tools for **highlighting** and **note-taking**, which significantly enhanced user engagement and usability.
- Deployed **Docker** containers to **AWS** and **Azure** environments, enabling seamless scaling, improving application reliability through isolated environments, and streamlining deployment processes for faster and error-free updates.

Asynchronous Interview Analysis */ Python, Flask, React, MongoDB* July 2019 - September 2020
- Developed a **Python**-based automation tool with **Flask**, **React** and **MongoDB** reducing candidate screening time.
- Designed four evaluation modules: Aptitude Test, Psychometric Test powered by **machine learning linear regression**, Essay Sentiment Analysis using **NLP**, and Video Interview Analysis, boosting accuracy by **30%.**
- Built a facial expression recognition framework using a **mini-Exception convolutional neural network**, achieving **77%** accuracy.

Drowsy Driver Detection System / *Python, Deep Learning* January 2019 - July 2019
- Built a real-time Drowsy Driver Detection System using **Python** and **CNN**, achieving **96**% accuracy in detecting driver fatigue
- Developed a framework to monitor eye movements and trigger real-time alerts, enhancing road safety and preventing accidents.

TECHNICAL SKILLS

- **Programming Languages**: JavaScript, Python, C, C++, C#, Java, HTML, CSS, TypeScript, Ruby, Go, Kotlin.
- **Frameworks/Libraries and Tools** : Angular, React, .NET Core, Node.js, Express.js, Bootstrap, Docker, Flask, Git, Azure DevOps, Azure, AWS, RabbitMQ, AWS S3, Jira, OpenAI, Web3.js, Kafka, Entity Framework Core, GraphQL, Uno Platform, Kubernetes.
- **Databases**: MySQL Server, MongoDB, SQL, MariaDB, Redis, PostgreSQL.