# Prateek Sharma

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## WORK EXPERIENCE

**Sentari AI,** Tech Lead-Intern                                       Jun 2025 – Present | NY, USA
- Led full-stack development of a privacy-first journaling platform, integrating LLMs, Whisper transcription, and embeddings-based semantic search.
- Architected scalable backend (FastAPI, PostgreSQL, Supabase) and iOS app (React Native, Expo) with features like infinite scroll, calendar tagging, and multilingual detection.
- Implemented Dockerized deployment, secure authentication, and automated insights while establishing engineering standards for scalable team delivery.

**Tilaverse Inc,** Software Development Lead- Intern                   May 2024 – Aug 2024 | NY, USA
- Directed a team of 4 developers to construct a new application using the React framework with Redux and a Python Django backend, facilitating seamless microservices integration on AWS, and accelerating project delivery by 20%.
- Architected and deployed a cutting-edge tech stack, incorporating Docker for containerization, MongoDB, and PostgreSQL for databases. Established secure service communication through REST APIs and JWT tokens, boosting development efficiency by 30%.
- Collaborated with DevOps and Data Science teams to synchronize their endpoints within the app, ensuring efficient service interactions that elevated overall system performance and reliability by 25%.

**Amdocs**

Advanced Software Developer                                            Jun 2021 – May 2022 | Pune, India
- Championed the creation and rollout of two innovative Microservices for product price discovery, employing Java and Kafka to cut runtime by 40%, thereby enhancing efficiency by 20%.
- Led the technical evaluation and recruitment of over 30 candidates, augmenting the Microservices team's skill set in Java and SQL by 50%.
- Devised and implemented project-specific training programs and mentorship strategies for new hires, driving a 30% rise in team productivity through enhanced knowledge transfer and effective use of tools like Git and Jenkins.

Software Developer                                                     Nov 2018 – Jun 2021 | Pune, India
- Enhanced and maintained the front end of a web application using JavaScript, React-Redux, and SCSS, achieving a 25% uplift in user satisfaction, and enabling clients to place orders efficiently.
- Engineered and refined several APIs utilizing Java Spring Boot, Kafka messaging, Swagger, XML, REST APIs, and Apache POI, leading to a 30% boost in backend performance and a streamlined data migration process.
- Developed and optimized SQL queries in the Oracle database for data extraction and analysis, reducing workflow bottlenecks by 20%, thereby improving cross-team collaboration.

**Infosys**

Software Developer and Tester(Data Analytics and Automation)          Jan 2016 – Nov 2018 | Pune, India
- Leveraged SQL, MySQL, Oracle SQL, XML, and CSV to manipulate data across diverse datasets, successfully extracting and loading data into HIVE, ensuring seamless data flow and accessibility for analytical processing.
- Innovated a Java application to automate quality assurance processes for data integrity post-transformation and loading, enhancing data accuracy and reliability by 40%
- Optimized data handling procedures for extensive datasets with varying formats through Java programming, improving operational efficiency by 30%, and making data more accessible for analytics applications.

Systems Engineer (Education, Training & Assessment)                   Aug 2015 – Jan 2016 | Mysore, India
- Partnered with cross-functional teams to integrate state-of-the-art technologies into the training curriculum, reducing onboarding time for new employees by 25% and boosting overall departmental productivity by 30%.
- Developed a custom C# tool to streamline scheduling processes for educational sessions, cutting down conflicts and inefficiencies by 50%, ultimately saving the organization $100K in operational costs.

## PROJECTS

**Internal Chatbot with Role-Based Access Control,**                  Apr 2025 – Jun 2025
AI Engineering Project | FinSolve Technologies
- Engineered a RAG-based chatbot using FastAPI, GPT, and Qdrant to enable secure, role-specific document querying for Finance, HR, Engineering, Marketing, and Executive teams, eliminating cross-functional data silos.
- Developed modular authentication and authorization layers with HTTPBasic and RBAC, ensuring controlled access to sensitive departmental documents like financials, architecture, and employee data.
- Designed an intuitive Streamlit-based front-end and implemented NLP-powered query handling to deliver real-time, contextual responses with reference-backed document citations.

**AI-Powered Blog Post Generator with Daily Automation**             Jun 2025 – Jun 2025
- Developed a REST API that accepts a keyword and returns a structured, affiliate-ready blog post using GPT-4o
- Mocked SEO metrics (search volume, difficulty, CPC) to simulate real-world keyword scoring

- Automated daily blog generation using APScheduler and containerized the app with Docker for consistent deployment, Exposed generation endpoint and results via JSON API; saved output in Markdown format

### Image Enhancement with UNet and Dlib                                Jan 2025 – May 2025
- Designed an AI-powered tool to isolate and enhance facial regions, replacing backgrounds with custom or clean white backdrops.
- Trained a UNet segmentation model and combined it with Dlib facial landmarking for precise cutouts.
- Delivered production-ready outputs ideal for ID photos, professional portraits, and product catalogs.

### Real-Time Face Recognition with YOLO                                Sep 2024 – Dec 2024
- Developed a real-time facial recognition system using YOLOv5 for object detection and OpenCV for frame-level streaming.
- Fine-tuned the model with custom face data to enhance accuracy in controlled environments.
- Achieved sub-second detection latency and integrated model deployment for real-world testing.

### Data Analyst, Election Data Insights for AtliQ Media                May 2024 – Jul 2024
- Spearheaded an in-depth analysis of 2014 and 2019 Lok Sabha elections data using Python and pandas, leading to a 30% enhancement in data accuracy and visualization clarity.
- Uncovered key insights, such as a 25% shift in voter preferences, and identified top constituencies with the highest NOTA votes, deepening the understanding of electoral patterns.

### Unveiling E-Commerce Customer Behaviors                             Feb 2024 – Apr 2024
- Orchestrated the analysis of a 50 GB dataset on an eCommerce platform to identify customer behavior patterns, optimizing targeted marketing strategies and personalizing customer experiences.
- Applied advanced data analytics techniques, including machine learning algorithms, to segment customers and predict purchasing behaviors, driving a 50% increase in sales conversions.
- Built and deployed a dynamic dashboard using Python, PostgreSQL, NumPy, Seaborn, Matplotlib, and Pandas, offering real-time insights into customer trends.

### TCC Scheduler                                                        Jun 2023 – Oct 2023
- Created a robust mentor-mentee matching algorithm using React JS, J2EE, and MySQL, resulting in a 70% rise in successful matches and connections within the system.
- Designed an intuitive interface for the automated scheduling system, reducing manual intervention by 80% and saving an estimated 15 hours per week for administrative staff.
- Streamlined data management by integrating real-time feedback mechanisms into the system, leading to a 50% improvement in mentor-mentee communication and engagement levels.

## EDUCATION

**Rochester Institute of Technology,**                                  Aug 2023 – Dec 2025
Master of Science, Computer Science (GPA 3.9/4)

**Rajasthan Technical University,**                                     Aug 2011 – Jul 2015
Bachelor of Technology in Electronics and Communications (GPA 3.6/4)

## TECHNICAL SKILLS

- **Languages:** Python, Java, SQL, React, JavaScript, TypeScript
- **ML & Data Tools:** PyTorch, TensorFlow, Scikit-learn, OpenCV, NumPy, pandas, Jupyter Notebook, Vector Database
- **Cloud & DevOps:** AWS (EC2, RDS, EFS, ELB), Docker, Jenkins, Git, FastAPI
- **Frameworks:** Redux, Spring Boot, Django
- **Databases:** Postgres, MySQL, MongoDB, Oracle
- **Other:** REST APIs, Kafka, Dlib, Prompt Engineering, Linux, WebSocket