Prajakta Prasad Avachat

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EDUCATION

Northeastern University, Boston   Sept 2025 - April 2027
Master of Science in Computer Science **| GPA: 3.83/4.0**
Coursework: Programming Design Paradigm, Algorithms, Data Processing and Management, Web Development

Savitribai Phule Pune University, Pune   Aug 2019 - Sept 2023
Bachelor of Engineering in Information Technology with Honors in Data Science **| GPA: 3.83/4.0**
Coursework: Data Structures and Algorithms, Object-Oriented Programming, Software Engineering, Database Management Systems, Operating Systems, Machine Learning, Deep Learning, Data Science and Big Data, Web Application Development, Human-Computer Interaction, Cybersecurity, Development and Operations

EXPERIENCE

Analyst | PTC Inc | Pune, India   July 2022 - Aug 2025
- Developed robust cloud automation frameworks using Pytest and Selenium-Java, streamlining end-to-end and regression testing, reducing manual effort by **40%**, and accelerating release validation cycles by **35%** through reusable, scalable components.
- Validated **Apache Kafka** and **Azure Event Hub** integrations within the ThingWorx IoT platform through rigorous end-to-end testing and message flow validation, ensuring **100%** reliable data logging without loss, duplication, or latency across **50+** enterprise deployments.
- Integrated **OpenTelemetry** metrics to enable real-time monitoring of **20+** performance KPIs, helping teams proactively identify issues and reduce production incident resolution time by **30%** through faster root-cause analysis and alerting.
- Led stabilization across five global releases, collaborating with **10+** cross-functional teams to triage and validate 200+ critical defects, achieving under 2% downtime and maintaining consistently high-quality enterprise releases.
- Performed comprehensive functional, regression, integration, and performance testing across **15+** product features, ensuring full end-to-end coverage, enhanced reliability, and consistently high-quality enterprise deployments.

Web Development Intern | PCET's Digital Marketing, Pune, India   Sept 2021 – May 2022
- Gathered requirements and collaborated with mentors and faculty to translate academic and administrative needs into structured technical specifications for the college's digital platform.
- Designed, developed, and managed the official college website using HTML, CSS, and JavaScript, delivering a **100%** responsive, cross-device compatible platform that improved accessibility and streamlined information sharing for a community of 5,000+ users.
- Implemented content management workflows and performed regular maintenance and updates, ensuring **99.9%** uptime and accuracy across pages, improving engagement and reducing redundant queries by **30%**.

TECHNICAL SKILLS

Programming & Analytics: Python, R, Pandas, NumPy, Matplotlib, Seaborn, Jupyter Notebook
Data Visualization and Business Intelligence: Tableau, Power BI, Dashboard Design
Databases and Querying: SQL, PostgreSQL, MySQL, Google BigQuery, Microsoft Excel
Data Engineering: ETL Pipeline Development, Data Cleaning and Transformation, Data Schema Design
Test Automation and Quality Assurance Tools: Selenium, Pytest
DevOps and Cloud: Docker, Kubernetes, Azure, Git, Jenkins, CI/CD Pipelines
Web Development: HTML, CSS, JavaScript

PROJECTS

FraudBusters - Financial Fraud Detection   Oct 2025 - Dec 2025
- Built an end-to-end ML fraud detection pipeline using data preprocessing, feature engineering, and classification models, trained and evaluated on 10K+ financial transactions.
- Achieved 80–85% detection accuracy through model evaluation, cross-validation, and hyperparameter tuning, improving reliability and reducing false positives.

Calendar Application (Java)   Nov 2025 - Dec 2025
- Developed a Java-based calendar application using OOP principles, collections, and Java Date-Time APIs to support event CRUD operations, scheduling, and conflict handling.
- Designed a modular architecture, improving code maintainability and reducing future feature extension effort.

Augmented Reality Snipping Tool   June 2022 - April 2023
- Enhanced an AR-based image capture and object placement system using advanced pointing techniques, improving precision and user interactivity.
- Implemented SIFT and U²-Net models in Python for robust object detection and segmentation, leveraging Docker containers to ensure efficient, cross-environment image processing and deployment.

ACHIEVEMENTS AND CERTIFICATIONS

- Research Paper: Augmented Reality Snipping Tool | **Published in IEEE Xplore**
- Copyright: ScrapDeal - Mobile Application to Digitalize Junk and Scrap Sales | **Received from the Government of India**
- **PTC Applause Award (3x)**: Recognized for resolving critical customer issues ahead of schedule
- Rank holder: **8th rank** in IT department-Savitribai Phule Pune University
- **AZ-900 Certified**: Microsoft Azure fundamentals
- **Google Business Intelligence** Professional certificate