

# 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 U<sup>2</sup>-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