Prajeena Maharjan

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SUMMARY

Aspiring Software Engineer with 5+ years of experience as a Lead SDET, building and leading the development of complex test frameworks. Currently completing a Master's in Computer Science (expected 2026), solidifying expertise in algorithms, distributed systems, and software architecture. Eager to leverage a proven track record in development and a deep understanding of the SDLC to build scalable, customer-facing applications.

SKILLS

Programming Languages & Frameworks: Python, JavaScript, Django, Flask, REST APIs, Cypress

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, IAM), Docker, Kubernetes, GitHub Actions (CI/CD), Cloudflare

Databases & Observability: PostgreSQL, MySQL, PL/SQL, NoSQL, Power BI, Grafana, WebFOCUS

Machine Learning & AI: Scikit-learn, PyTorch, Time Series Analysis, Transformers, RNN

Tools & Collaboration: Git, JIRA, Postman, Agile Methodology, Linux, Windows, Wireshark, Security Onion

WORK EXPERIENCE

Graduate Teaching Assistant, East Texas A&M University - Commerce, TX 　　　　**Aug 2025 – Present**

- Assisted in courses covering System Design, Database Systems and Enterprise Architecture, mentoring and helping students on building scalable system design, database design, distributed architecture, and cloud integration. Supported classroom operations including test proctoring, grading, and lab demonstrations.

Graduate Assistant - Data Analyst, East Texas A&M University - Commerce, TX 　　　　**Jan 2025 – Aug 2025**

- Retrieved, aggregated, and analyzed institutional datasets to deliver accurate insights for ad-hoc requests and IR-led projects under tight deadlines
- Designed and maintained interactive WebFOCUS dashboards, enabling stakeholders to track key metrics in real time while ensuring compliance with data-handling policies

SDET Engineer - Lead, ZenLedger.io - Chadds Ford, PA 　　　　**Oct 2019 – Dec 2024**

- Developed and integrated a Cypress(JavaScript) automation framework, increasing test coverage by 30% and reducing manual testing effort by 50%; improved maintainability by adding UI attributes for testability and creating reusable helper functions
- Embedded automated UI and API test suites into GitHub Actions CI/CD pipelines with CRON-driven runs based on priority of functionality, accelerating bug detection by 40% and reducing release cycles and improving reliablity
- Built an AWS-hosted monitoring dashboard with synthetic tests and RDS health checks for prompt issue turnaround and integrated with slack for the issue flagging, optimizing queries to improve system performance
- Led and mentored a team of 3 junior SDET, managing test strategies, data, and code reviews, while delivering training that improved productivity
- Partnered with security/compliance teams to achieve SOC I & II compliance

EDUCATION

East Texas A&M University, MS in Computer Science|GPA: 3.68 　　　　**Jan 2025 – May 2026**

Tribhuvan University, BE in Computer Engineering|GPA:3.31 　　　　**Nov 2015 – Sept 2019**

RESEARCH EXPERIENCE

UAV Location Integrity Checks on the Irregular GPS Measurement 　　　　**Aug 2025 - Present**

- Working under professor, to check location integrity of UAV on the irregular GPS by implementing conventional deep sequence model such as LSTM, GRU and Transformers to enhance positional accuracy and reliability

PROJECTS

Open Source Contribution – Cypress Documentation   **GitHub Link**
- Fixed incorrect command in official Cypress documentation (PR merged)
- Tools used: Cypress, Git, GitHub

Astra - AI Powered Assistant for Asthma Patients   **GitHub Link**
- Built a full-stack health assistant using React + Flask integrating AirNow & NWS APIs with Gemini AI for personalized predictions.
- Tools used: Python, ReactJS, Flask, RESTful API, Google Gemini API

Career Preparedness and Marketable Skills Among University Graduates   **GitHub Link**
- Analyzed student skill readiness using Python; provided insights for curriculum improvements.
- Tools used: Python, Numpy, Pandas, Descriptive Stat, Data visualization, Data cleaning, Scipy.stats

Heart Disease Prediction Using ML, DNNs, and Transformers   **GitHub Link**
- Developed ML pipeline comparing 6 models; LightGBM achieved 80% accuracy
- Tools used: Python, Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, SMOTE, MinMaxScaler, Jupyter Notebook

CERTIFICATES

ISTQB Certified Tester - Foundation Level   **Sept 2023**
Prompt Engineering & Programming with OpenAI - Columbia University   **Jul 2025**

AWARDS & LEADERSHIP

- Recipient of the **Dan Kohn Scholarship** to attend **KubeCon + CloudNativeCon North America 2025**, awarded by **Cloud Native Computing Foundation (CNCF)**.
- **1st Runner-Up** – Platform Engineering CTF: Build Your Own Kubernetes IDP (2025), hosted by Akamai Technologies.
- Recipient of the **AI Engineer World's Fair 2025 Scholarship**, awarded by AI Engineer.
- Recipient of **Competitive Scholarship** at East Texas A&M University.
- **Vice President of the ACM Student Chapter** (Association for Computing Machinery) at East Texas A&M University.