Ananya Uppal

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Summary

Software engineer with 1.5 years of experience building full-stack features and QA infrastructure, completing an MS in Computer and Information Technology at Purdue (GPA 4.0). Built data pipelines and testing frameworks at Palo Alto Networks and Leen. Seeking product engineering roles combining hands-on development with test automation.

Skills

Domain Skills	Responsible ML/AI, API Development, Test Automation, LLMs, GenAI, Prompt Engineering
Technical Tools	Docker, AWS, GCP, Git, Hadoop, Spark, Linux, Jenkins, Flask, Django
Languages & Databases	Python, Java, SQL, C/C++, MongoDB, React.js, HTML, Ruby, MATLAB, SAS

Education

Purdue University – MS in Computer and Information Technology **GPA: 4.0/4.0** **Aug 2024 – August 2026**
Coursework: Responsible Data Science, AI, Statistics, HCI. ML data pipeline research with Dr. Romila Pradhan, RDS Lab. Graduate teaching assistant across 4 semesters; Taught Data Management (CNIT 392) and Visual Programming (CNIT 175).

PES University – B.Tech in Computer Science **GPA: 9.06/10** **Aug 2019 – May 2023**
Coursework: Big Data, NLP, IR, Network Analysis, DBMS, OOD. 6-time MRD Scholarship winner (top 20% of class). Club Member of ACM-Women and The Changemaker's Society: Organised and mentored 3 hackathons/ideathons.

Experience

Data Science Intern, **Leen**, *San Francisco, CA* **Jul 2025 – Aug 2025**
- Designed 3 bi-directional unified API-based connectors mapping GRC entity, evidence, assessment, and controls data across ServiceNow, OneTrust, and Archer, deployed to production.
- Led requirements discovery and onboarding for 2 customers in 8 weeks, directly contributing to revenue by translating business needs into data models and API connector specs.

Software Engineer, **Palo Alto Networks**, *Bengaluru, India* **Aug 2023 – Jul 2024**
- Designed and developed QA and evaluation frameworks for firewall software across VM and hardware device families (3k/5k/7k series); defined structured pass/fail rubrics and coverage thresholds, improving code coverage from 23% to 78%.
- Built Jenkins-based testing pipelines and communicated evaluation findings and reliability metrics to cross-functional engineering and product teams.
- Validated and automated tests for root certificate integrity at scale across 8 PanOS releases and 12M+ devices; developed systematic sanity quality test suites by running suites against internal git PR's.

Software Engineer Intern, **Palo Alto Networks**, *Bengaluru, India* **Jan 2023 – Jul 2023**
- Reduced automation backlog 30% by designing and integrating regression test suites (pytest, gnmic); expanded REST API coverage across six PanOS releases using Selenium for streaming telemetry validation.

Software Engineer Intern, **Nasdaq**, *Bengaluru, India* **Jun 2022 – Jul 2022**
- Evaluated 4 blockchain platforms against 17 technical criteria using Hyperledger Caliper; synthesized quantitative findings into clear recommendations presented to non-technical and executive stakeholders.

Projects & Research

Data Valuation for Label Error Detection, *MS Thesis, Purdue RDS Lab* **Aug 2024 – Present**
- Evaluating and comparing Shapley-value-based and entropy-based methods to detect and repair mislabeled/noisy label data in ML pipelines; focus on improving model fairness (removal of bias), reliability, and explainability.

Chemical Identification Tool, *Dow Chemical, TDM 511* **Jan 2025 - May 2025**
- Worked with corporate mentors to develop a multi-stage XGBoost model predicting chemical peroxide formation using feature engineering (ionic charges, molecular weights) and systematic feature selection.

Interpretable Hybrid Recommender via Graph Convolution (Published at CCCE'23, Stockholm)
- Trained a 4-model hybrid model utilising GCNs to augment recommendation serendipity. Formulated a novel distance-based serendipity metric and improved interpretability through KNN feature importance analysis.

RePI: Research Paper Impact Analysis (Published at ISDA'22)
- Conducted research to analyze the impact of research papers using the Semantic Scholar API using DOI. Formulated a unique impact factor ratio to quantify publication influence.