# Aaditree Jaisswal

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## PROFESSIONAL EXPERIENCE

**Software Engineer Intern** | *116 Ideas Inc., Santa Clara, USA* — **Aug 2025 — Present**
- Designed and implemented a high-performance **gRPC** article caching microservice in **Go** with a **PostgreSQL** backend, adding automated cleanup and extensive test coverage for scalability.
- Conducted comprehensive **Unit Testing** and **Integration Testing** to ensure production readiness, significantly improving overall system reliability, stability, and robustness under varied load conditions.

**Software Engineer Intern** | *Advisor360, Weston, USA* — **Jun 2024 — Aug 2024**
- Reduced issue resolution time by 20% by developing an automated Linux vulnerability assessment pipeline in **Python** and **Shell**, adding a Tkinter GUI and packaging via **PyInstaller** for streamlined workflows.
- Decommissioned 20+ non-production servers by automating workflows with **Ansible** playbooks and **Jenkins** pipelines, while managing environment credentials to strengthen cross-team access control.

**Software Engineer II** | *Cisco Systems, Bengaluru, India* — **Aug 2021 — Jul 2023**
- Championed automated testing with **Jest** and **Cypress**, boosting coverage by 35% and reducing defects by 25%, while building **Angular**/**NgRx** modules that cut analytics latency by 30% for 50K+ users.
- Built and integrated 80+ **REST APIs** with **Java**/Spring Boot, optimizing JVM performance and caching, while validating distributed workflows using **Kafka** and **Redis** for low-latency, failover-resilient data access.
- Managed **CI/CD** pipelines with **Jenkins**, automating builds, validation, and deployments, and implemented observability with metrics (latency, errors, cache hits) using **monitoring** tools to debug under deadlines.
- Mentored 5+ engineers and led 50+ reviews, enforcing quality with **GitHub Actions**, while authoring documentation, coordinating QA, and collaborating to publish best practices and resolve production issues on-call.

## EDUCATION

**University of Massachusetts Amherst** — **Sep 2023 — May 2025**
*Master of Science in Computer Science, GPA: 3.9*

**MKSSS's Cummins College of Engineering for Women, Pune** — **Aug 2017 — May 2021**
*Bachelor of Technology in Computer Engineering*

## RESEARCH & PUBLICATIONS

**Mathematical Expressions in Software Engineering Artifacts** | Publication
- Curated a custom dataset of 1,500+ annotated bug reports and built a tool to identify mathematical expressions (MEs), increasing research efficiency by 20%+ in projects focused on ME-based issue detection.

**Classification of Handwritten Indic scripts using Deep Learning** | Publication
- Employed a deep learning approach to proficiently classify and accurately identify twelve handwritten Indic script languages, improving recognition effectiveness across diverse writing styles.

**Effect of Hyperparameters on Backpropagation** | Publication
- Analysed 10+ hyperparameter configurations during backpropagation training runs on multiple datasets; achieved a 7–10% improvement in model convergence rate and stability.

## TECHNICAL PROJECTS

**Instasafe** | *JavaScript, HTML, CSS* | Demo Video | Github
- Built a browser extension using fuzzy keyword matching and a pre-trained **NLP** model, flagging 95% of harmful content with 98% precision, and added a trust score system to monitor behavior and censor zero-trust offenders.
- Designed a comprehensive guardian dashboard enabling transparent moderation, detailed oversight, and streamlined review of flagged content to ensure safer online interactions.

**Ummeed** | *Python, Django, GeoPy* | Demo Video | Github
- Co-developed a scalable **Django**-based platform to track global humanitarian issues, integrating 10+ detailed issue profiles, real-time chat functionality, and rich educational content for users.
- Integrated advanced **NLP** modules for real-time clustering of 1,000+ news and social feeds, presenting insights through interactive geospatial views powered by **Google Maps** and **GeoPy**.

## SKILLS

**Programming Languages:** Go, Java, Python, C++
**Frameworks & Libraries:** Angular, React, Node.js, Django, Flask, TensorFlow, PyTorch
**Distributed Systems & APIs:** gRPC, REST APIs, GraphQL, Protocol Buffers, Kafka, Microservices
**DevOps & Cloud:** Docker, Kubernetes, Jenkins, GitHub Actions, Terraform, GCP, Azure
**Databases:** PostgreSQL, MySQL, MongoDB, Elasticsearch
**Testing:** Unit Testing, Integration Testing, Cypress, Jest