

Harleen Kaur

Virginia, US | kaurharleen@vt.edu | 571-672-2192



LinkedIn



GitHub

Education

Virginia Tech, VA

Master's in Computer Science and Applications

Aug. 2024 - Dec. 2025

GPA: 4/4

NIT Allahabad

Bachelor of Technology

June 2017 - May 2021

GPA: 8.32/10

Relevant Courses: Data Structures & Algorithms, Object-Oriented Programming, Web Development, Cloud Computing, API Design, Distributed Systems, Data Mining, Machine Learning, Information Visualization, NLP, AI Tools, Web Application Security, DBMS

Skills

Certifications: 2x AWS Certified: Solutions Architect & Cloud Practitioner, Information Security

Languages: Java, J2EE, Python, C, Typescript, SQL, HTML5, JavaScript

Frameworks: Spring Boot, Spring Batch, Maven, Angular, React, Apache Kafka, Apigee, JUnit, Selenium, Cucumber, Cypress

Cloud & DevOps: AWS (EC2, EKS, S3), Docker, Kubernetes, Terraform, Jenkins, Agile/Scrum, REST API Design

Databases: Oracle, CockroachDB, Snowflake, MyBatis

Tools: JIRA, Swagger, Datadog, Splunk, IntelliJ, Git, Eclipse, VS Code, PyCharm, Jupyter Notebook, Security Scanners

Data Science & Analytics: Deep Java Library, Scikit-learn, Pytorch, Pandas, NumPy, Tableau, Plotly, Dash, Matplotlib, Seaborn

Experience

Ticketmaster | Software Engineer Intern

June 2025 - Aug. 2025

Domain: Fan Experience

Java, SpringBoot, Slack API, Kubernetes, CI/CD, NLP, JIRA, Confluence, GitLab

- Engineered enterprise Slack bot with **AI-powered summarization** using Java DJL and DistilBERT encoder-decoder models, automating JIRA ticket creation from Slack threads and reducing manual processing by **70% for 1000+ users**.
- Implemented **intelligent epic matching** system with cosine similarity algorithms (70% threshold) and real-time NLP processing, improving automated issue categorization **accuracy by 40% while handling 500+ tickets** monthly.

Fidelity Investments | Full Stack Developer

Aug. 2021 - Aug. 2024

Domain: Customer Account Management

AWS, Kafka, Kubernetes, Spring Batch, Spring Boot, Java, SQL, Oracle, Snowflake

- Owned the end-to-end Software Development Life Cycle (SDLC) including design, development, testing, deployment, and maintenance of a **real-time incremental cloud migration** solution processing **50K+ records per minute**, modernizing legacy DB2 infrastructure, eliminating mainframe dependencies, and driving **multi-million-dollar cost savings**.
- Achieved **\$2.5M** in cost savings by designing and implementing a **data migration solution** that replaced on-premises databases with direct processing of mainframe flat files in Snowflake cloud, enhancing data accessibility.
- Engineered a robust **Cucumber-based test automation framework** ensuring customer data security and **90% validation coverage** across account workflows, creating comprehensive QA scenarios to strengthen data integrity and accelerate release quality.

Domain: Mutual Funds

Docker, Terraform, CI/CD, Jenkins, Swagger, Angular, Java, Splunk, Datadog, JUnit, Apigee, Cypress

- Managed and maintained **40+ mutual fund applications (10K+ daily users)** on a microservices architecture, enhancing features, resolving stakeholder-reported issues, and continuously modernizing outdated tech stacks using **Test-Driven Development**.
- Led a **Terraform-based CI/CD deployment** initiative, shifting away from traditional tools like Jenkins declarative, Udeploy, and Concourse, which enhanced operational efficiency and increased **deployment speed by 60%**.
- Developed a dynamic **Rule engine API** with multiple parameters for accurate fund selection and streamlined rules creation, implementing JWT token verification for secure access control, while maintaining comprehensive **Swagger documentation**.

Fidelity Investments | Software Engineering Intern

May 2020 - July 2020

Domain: Corporate Technology Group

React, Typescript, HTML, CSS, Bootstrap, Power BI, SharePoint

- Empowered over **60,000 Fidelity employees** with a **role-based feedback system** through enhanced SharePoint online sites, accelerating data-driven decisions and strategic reporting capabilities.
- Reduced SharePoint page load time by 40% for all employees** by standardizing JavaScript and CSS file references across all sites, leading to improved user productivity and increased platform engagement.

Academic Projects

ML-Based Rental Price Prediction System

Python, Pandas, Scikit-learn, Seaborn, Matplotlib, Plotly, Tableau, Dash

- Developed a **cloud-native data analytics platform** using **Dash** that automated rental data analysis workflows through custom feature selection and statistical testing, deployed globally via **Docker on Google Cloud Platform (GCP)**.
- Built a **ML pipeline** for rental predictions utilizing GridSearchCV optimization, cross-validation, and hyperparameter tuning with gradient boosting models, achieving **89% accuracy** while enabling automated market analysis.

E-commerce Platform

HTML, CSS, Angular, Spring Boot, SQL

- Built a **scalable e-commerce solution** with Java and Angular that streamlined purchase workflows through secure **Stripe payments**, automated customer communications, and optimized SQL queries for faster data retrieval.