

Haramrit Singh Khurana

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EDUCATION

- **Master of Science, Computer Science | GEORGE MASON UNIVERSITY** **Aug 2019 – May 2021**
Coursework: Algorithms, Systems Programming, Object Oriented Design, Database Systems, Component-based Software Engineering
- **Bachelor of Engineering, Computer Engineering | UNIVERSITY OF MUMBAI** **Jul 2015 – Jun 2019**
1st Runner Up – Best Capstone Project in Department of Computer Engineering; 2nd Runner Up – Mumbai Hackathon (2017)

CERTIFICATION

- **AWS Certified Solutions Architect – Associate (Amazon Web Services)** **Jun 2020 – Jun 2023**

WORK EXPERIENCE

- Engineer Sr Analyst, Assistant Vice President - C12 (Citibank NA) | Irving, Texas** **Dec 2022 – Present**
- Led the Playwright automation project, independently conducting R&D, defining the technical roadmap, and overseeing execution to accelerate implementation. Created and assigned JIRAs to a junior colleague to streamline development. Successfully integrated the test suite into Jenkins for nightly builds, reducing manual testing efforts by 60% per RFT cycle and ensuring reliable regression testing. The Playwright suite also plays a critical role in stabilizing automation as the team transitions from DMA (Microfocus) to Ansible playbooks.
 - Spearheaded the Ops Manager Metrics Tab for MongoDB clusters, implementing custom Java Digest Authentication and developing a critical npm package for UI, reducing manual monitoring efforts by 30%.
 - Optimized UAT and production deployment by introducing a divide-and-conquer testing strategy and SQL aggregation techniques, ensuring faster releases and database consistency across environments.
 - Closed 62+ high-impact JIRAs, showcasing strong problem-solving and full-stack development expertise across Angular and Spring Boot.
 - Oversaw onboarding of multiple new colleagues, both senior and junior, ensuring they were set up for their day-to-day work while continuing to meet my own deliverables and action items on time.

- Software Engineer (Optimal Satcom Inc) | Herndon, Virginia** **Jun 2021 – Oct 2022**
- Led the migration of firm-wide legacy applications to modern web applications utilizing DevExpress React, ASP.NET Core, and MS-SQL, enhancing system efficiency and user experience.
 - Designed and implemented three critical components in C#, taking full responsibility for their future enhancements, bug fixes, and resolving critical silent console crashes and security deprecation issues.
 - Revamped the database architecture for the enterprise SATCOM capacity management system by creating and updating SQL triggers, queries, stored procedures, and upgrade scripts, ensuring optimal data management and system functionality.
 - Developed and enhanced report generation functionality, providing external stakeholders with meaningful insights and pattern decoding, and pioneered the integration of a novel third mode of operation into the company's flagship product, ECM.
 - Improved software quality and operational performance by collaborating with support and QA teams on urgent bug fixes, optimizing legacy code to reduce compiler warnings and errors by approximately 70%.

- Teaching Assistant – IT207: Applied IT Programming (George Mason University) | Fairfax, Virginia** **Jan 2020 – May 2021**
- Worked as a GTA and Lab Instructor for the course Applied IT Programming (IT 207) at GMU, instructing students about the course work on HTML, CSS, PHP, and MySQL
 - Responsible for grading lab assignments, quizzes and assisting 60 students individually with their questions during designated office hours. Assisting faculty instructors with a lecture class by managing students in recitation, laboratory, and discussion sessions online and in-person

SKILLSETS

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| <p>Programming Languages: Java, C#, Python, C, JavaScript</p> <p>Database Systems: Oracle-SQL, MSSQL, MySQL, MongoDB</p> <p>Frameworks: Spring Boot, React, Node.js, DevExpress, React Native, Angular 8, Django, Bootstrap</p> | <p>Other: Git, Jira, TeamCity, Docker, Kubernetes, Jenkins, OpenShift, ServiceNow, JUnit, Linux, REST, Amazon Web Services, GraphQL, Heroku, Electron.js, Batch Scripting, TensorFlow</p> |
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PROJECTS

- Portfolio Website | <https://haramrit09k.github.io>**
- Designed and developed a portfolio website using **React**, hosted on GitHub Pages with an auto-deploy setup with a push event trigger
 - Incorporated **XSS input sanitization** using DOMPurify to prevent against cross-site scripting attacks
- SpaceTerra | <https://spacetera.herokuapp.com>**
- Utilized **Phaser.io** game engine, **Node.js** and **MongoDB** to host the web application on a PM2 load-balanced Nginx server
 - Played by **over 12,000 players** through the Teknack gaming festival hosted by ACM-DBIT, making it the most successful game of the event
- A Resource Effective Approach for Distributing Machine Learning Models over a Cluster | [Published in ICAC3 2019](#) | [\(YouTube Demo\)](#)**
- Devised an **interactive desktop application** to facilitate the **automation** of the **model training process distribution** over a local network
 - Maintained accuracy and achieved an overall **10% reduction** in model training time