

# Haramrit Singh Khurana

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LinkedIn: [linkedin.com/in/haramrit09k/](https://www.linkedin.com/in/haramrit09k/) | GitHub: [github.com/haramrit09k](https://github.com/haramrit09k) | Portfolio: [haramrit09k.github.io](https://haramrit09k.github.io)

## 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

### Software Engineer (Optimal Satcom Inc) | Herndon, Virginia Jun 2021 – Present

- Migrated firm-wide legacy applications to web applications using DevExpress React, ASP.NET Core, and MS-SQL
- Implemented three major components using C# and responsible for all future enhancements along with bug fixes of those components
- Responsible for fixing key components of critical silent console crashes reported by clients and deprecation issues integral to the security of the application
- Created and modified SQL triggers, queries, stored procedures, and database upgrade scripts for new releases of the enterprise SATCOM capacity management system for clients
- Developed and revitalized report generation functionality which provides meaningful insights and decoding useful patterns for external stakeholders
- Spearheaded a project-wide initiative to introduce a third mode of operation to the company's flagship product, ECM
- Collaborated closely with support and QA team to reproduce and fix high priority bugs reported by clients
- Optimized and restructured unused and deprecated legacy code and achieved a ~70% decrease in number of compiler warnings and errors

### 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

### Software Engineer Intern (Nexus 8 International) | Washington DC May 2020 – Aug 2020

- Individually developed 2 major web components using ASP.NET Core framework and Blazor in compliance with HIPAA
- Optimized the image upload process and decreased the upload time by 30% on average
- Identified and analyzed new business and functional requirements as a part of requirement gathering sessions with customers

### Backend Developer Intern (Don Bosco Institute of Technology) | Mumbai, India Jun 2018 – Dec 2018

- Led a team of 6 interns, and developed the plan of remodeling the website Don Bosco Journal of Science and Engineering using Node.js, Express and MongoDB
- Designed and implemented a secure tag-based paper-reviewer matching algorithm to automate the review assignment process

## SKILLSETS

**Programming Languages:** Java, C#, Python, C, JavaScript

**Database Systems:** MSSQL, MySQL, MongoDB

**Frameworks:** React, Node.js, DevExpress, React Native, Angular 8, Django, Bootstrap

**Other:** Git, Jira, TeamCity, Docker, Kubernetes, Jenkins, JUnit, Linux, REST, Amazon Web Services, GraphQL, Heroku, Electron.js, Batch Scripting, TensorFlow

## 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

### Student Survey Form

- Developed the front-end using **Angular 8** and **deployed RESTful API** for CRUD operations with **AWS Lambda** and **DynamoDB**.
- Employed Docker and Kubernetes for containerization, **Jenkins** for **continuous integration and deployment** and GitHub for version control

### 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