Haramrit Singh Khurana

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LinkedIn: linkedin.com/in/haramrit09k/ | **GitHub:** github.com/haramrit09k | **Portfolio**: haramrit09k.github.io

EDUCATION

- **Master of Science, Computer Science | GEORGE MASON UNIVERSITY | GPA 3.76 | Graduating May 2021** **2019 – 2021**
  Coursework: Algorithms, Systems Programming, Object Oriented Design, Database Systems, Component-based Software Engineering
- **Bachelor of Engineering, Computer Engineering | UNIVERSITY OF MUMBAI | GPA 8.58/10** **2015 – 2019**
  1st Runner Up- Best Senior Thesis; 2nd Runner Up – Mumbai Hackathon (2017)

WORK EXPERIENCE

Software Engineer Intern | Nexus 8 International, Washington DC | Internship **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
- Developed test cases and performed unit testing of the application before release to the stakeholders
- 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 | Internship **Jun 2018 – Dec 2018**

- Developed the plan and headed a team of 6 interns that implemented remodeling of 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

OTHER POSITIONS

Teaching Assistant – IT207: Applied IT Programming | George Mason University, Fairfax, VA **Jan 2020 – Present**

- Designed and graded assignments and exams, held office hours, and helped students understand the core concepts of web programming in PHP

Technical Head - ACM-DBIT | Don Bosco Institute of Technology (DBIT), Mumbai, India **Jul 2017 – May 2018**

- Organized Teknack, a two-day intercollegiate online gaming festival featuring more than 10 games played by over 25000 people
- Orchestrated and delivered workshops on GitHub, basic web development, Linux CLI to an audience of at least 40 freshmen and juniors

SKILLSETS

Programming Languages: Python, Java, C, C#

Database Systems: MySQL, MongoDB, Oracle

Frameworks: React Native, ReactJS, Angular 8, Django, Swing, Hibernate JPA, Bootstrap, Node.js, Spring Boot

Other: GitHub, SDLC, Docker, Kubernetes, Jenkins, Android, JUnit, Tableau, Linux, REST, Amazon Web Services, GraphQL

Areas: Software Design Patterns, Distributed Systems, Algorithms, Operating Systems, Data Mining, Machine Learning

PROJECTS

Portfolio Website | Individual

- Designed and developed a portfolio website using **ReactJS**, 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

wha2do | Team of 2

- Built a minimal design to-do list Android app using **React Native** and **Firebase**.
- Implemented **swipe gestures** to make it easier for the user to mark task status

Play Store Link

SpaceTerra | Individual

- 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

NumPy for C | Team of 4

- Created an **open-source** C library for Vectors, Arrays and Number Systems totaling **96 functions** that were 2x faster than Python equivalents
- Won 2nd Runner Up at Mumbai Hackathon (2017)

Student Survey Form | Team of 2

- Developed the front-end using **Angular 8** and **deployed RESTful API** for CRUD operations with **Lambda** and **DynamoDB**.
- Employed Docker and Kubernetes for containerization, **Jenkins** for **continuous integration and deployment** and GitHub for version control
- Received perfect score (100)

A Resource Effective Approach for Distributing Machine Learning Models over a Cluster | Team of 3

- Devised an **interactive desktop application** to facilitate the **automation** of the **training process distribution** over a local network
- Maintained accuracy and achieved an overall **10% reduction** in model training time
- Technology stack: **Electron.js** and **Batch scripting** for developing the application, **TensorFlow** for devising the test models

YT Demo Link

CERTIFICATIONS

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