

Vighanesh Sharma

Master's of Science in Computers Science (MSCS)
B.Tech. in Computer Science and Engineering (CSE)

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EDUCATION

- **University of Texas** *Dallas, Texas. August 2024 - present*
Master's of Science in Computer Science (MS CS)
- **Indian Institute of Technology (IIT)** *Ropar. 2017-2021*
Bachelor's of Technology in Computer Science and Engineering (B.Tech CSE)

SKILLS

- **Languages** : Python, Golang, C/C++, JavaScript, HTML, Java
- **Software/Frameworks** : Kubernetes, Docker, Linux, Git, Grafana, Prometheus, Guacamole, BDD, Cucumber, REST, PostgreSQL, NoSQL, Flask, React

WORK EXPERIENCE

- **GE HealthCare** *July 2021 - July 2024*
Software Engineer (Edison HealthLink PaaS)
 - I designed, built and enhanced **PaaS components** for Edison HealthLink **compute platform**.
 - I did multiple **Proof of Concepts (POCs)**, due to **architectural changes** of the platform.
 - Improved Connectivity Service used for connecting remotely to machines in the infrastructure by **automating connection** to the VMs and enabling connection through **SSH Keys**. Also addressed multiple bugs.
 - Enhanced and improved **logging service** by adding functionality to feed logs through **REST API**, excluding logs, multiline logging etc.
 - I maintained and improved Flair component which consisted of a **REST API** and an **AWS lambda** services written in **Go**; by **automating BDD tests in Gitlab Pipeline**, implementing **unit-tests with 90+% coverage**, Refactored and reduced the codebase size and addressed critical vulnerabilities.
Software Engineer (EEDP Technical Leadership Program)
 - Developed **micro-services** in **Go** and **Angular** to enable **Secure Access** for service users.
 - Developed and maintained the **micro-services** for **RBAC** (Role Based Access Control) Software; Resolved numerous bugs, increased unit test coverage to 90%, and addressed critical vulnerabilities.
 - I have worked on a **Patent** titled '**System for Detecting breach using AI**'. The **micro-services** for **RBAC** (Role Based Access Control) Software.
Software Intern (EID), *June 2020 - August 2020*
 - Developed a Web Based CT Scan Viewer using **VTK.js**, **Cornerstone.js** and **HTML**.

CERTIFICATION

- **Indian Institute of Science (IISc)** *January - November 2022*
Advanced Certification Program on 'Digital Health and Imaging Technology'. I recieved an **A+**.

ACHIEVEMENTS

- Secured a Rank of **2029, 99.8 Percentile** (out of 1 million candidates) in **JEE Advanced 2017**.
- Got Recognised for going **Above and Beyond** at GEHealthCare for filing a **patent**.

PROJECTS

- **Visual Cryptography** - Studied and Implemented different **Visual Secret Sharing** Schemes and compiled all the results to implement **Coloured Visual Secret Sharing Scheme for General Access Structures in Python**.
- **Spam SMS Filter in C Language** - Implemented a Spam SMS Filter in C Language.
- **Interactive Portfolio** - Created personal portfolio in the style of a game web-app using **React**, **Phaser3** and **Tailwind CSS**.
- **x64 Assembly Simulator**
- **Cryptanalysis** of different AES like Lightweight Cryptography Algorithms
- Various **Game Projects** on **Unity3D**
- Faculty Management System using **PostgreSQL**, **NoSQL(MongoDB)** and **NodeJS**.
- A Game on **FPGA**

RELEVANT COURSES

- **Computer Science** : Data Structures and Algorithms, Operating Systems, Databases, Applied Cryptography, Computer Graphics, Networks, Software Engineering, Theory of Computation, Algorithms and Design, Computer Architecture, Programming Paradigms and Pragmatics, Digital Logic Design, Machine Learning (Andrew NG), Data Science.
- **Mathematics** : Calculus, Probability and Statistics, Linear Algebra, Integral Transforms and Special Functions, Differential Equations.