

# Vighanesh Sharma

Computer Science and Engineering (CSE)  
Indian Institute of Technology(IIT) Ropar

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## EDUCATION

Qualification	Institute	Year
B.Tech (CSE)	IIT Ropar	2017-2021
Intermediate/+2	JKPS (CBSE)	2016
Matriculation	JKPS (CBSE)	2014

## CERTIFICATION

- Indian Institute of Science (IISc)** *January - November 2022*  
Advanced Certification Program on 'Digital Health and Imaging Technology'. I got an **A+ or 10 Grade Point**.

## 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, Imaging Technology, Digital Health, Data Science, Discrete Mathematical Structures,
- Mathematics** : Calculus, Probability and Statistics, Linear Algebra, Integral Transforms and Special Functions, Differential Equations.
- Electrical Engineering** : Signals and Systems, Basic Electronics.
- Physics** : Physics For Engineers, Fundamentals of Nuclear Physics, Thermal and Statistical Physics

## SKILLS

- Programming Languages** : Python, C/C++, Golang, HTML, JavaScript, TypeScript, Java
- Software/Tools** : Kubernetes, Docker, Linux, FluentD, FluentBit, Grafana, Loki, Guacamole, Prometheus, Git, BDD, REST, PostgreSQL, NoSQL, Angular, scikit-learn, PyTorch

## WORK EXPERIENCE

- GE HealthCare** *July 2021 - present*  
Software Engineer (Edison HealthLink PaaS)
  - I am designing, building and enhancing **PaaS components** for Edison HealthLink **compute platform**. I am engineering **services** for **logging, monitoring** and **connectivity** in a **high-availability cluster**.Software Engineer (EEDP Technical Leadership Program)
  - As part of Imaging Cybersecurity team, I developed **micro-services** in **Go** and **Angular** to enable **Secure Service Access** for service users and worked on the **micro-services** for **RBAC** (Role Based Access Control) and other Security Components.
  - I have filed a **Patent** for an **Intrusion Detection System**.Software Intern (EID), *June 2020 - August 2020*
  - Developed a 3D Web Based CT Scan Viewer using **VTk.js**, **Cornerstone.js** and **HTML**.

## ACHIEVEMENTS

- Filed a patent for an Intrusion Detection System, recognized for going **Above and Beyond** at GEHealthCare
- Secured a Rank of **2029, ~99.8 Percentile** (out of 1 million candidates) in **JEE Advanced 2017**.

## PROJECTS

- Visual Cryptography** - Researched and Implemented different **Visual Secret Sharing** Schemes and compiled all the results to synthesize **Coloured Visual Secret Sharing Scheme** for **General Access Structures in Python**.
- Cryptanalysis** of different AES like Lightweight Cryptography Algorithms
- Prediction of Fetal Acidosis using Cardiotocography data
- Spam SMS **prediction** in C Language
- Developed a game on **FPGA** using **Verilog**
- Various **Game Projects** on **Unity3D**
- Faculty Leave Management System using **PostgreSQL**, **NoSQL(MongoDB)** and **NodeJS**.

## POSITION OF RESPONSIBILITY

- Table Tennis Representative (2018-2019)**
- Hostel Representative (2018-2019)**
- BAJA SAEINDIA 2017 **Volunteer**.
- Mentor** of juniors in Institute Student Mentorship(ISMP) Programme, IIT Ropar 2018.
- Event Coordinator** of Annual Cultural fest (Zeitgeist), IIT Ropar.