

# Himanshu Kumar

himanshukumar660@gmail.com • +919476001014 • #121, Hall 4, NIT Durgapur, West Bengal, India

## EDUCATION

### B.Tech in Information Technology, Senior Year

July 2018

National Institute of Technology Durgapur, West Bengal, India

- CGPA: 9.31/10, Merit Position: 2<sup>nd</sup>

**High School** – Kendriya Vidyalaya Raksha Vihar (CBSE), Score – 95%, Merit Position: 1<sup>st</sup>

2015

**Secondary School** – Kendriya Vidyalaya Minambakkam (CBSE), Score – 95%, Merit Position: 1<sup>st</sup>

2013

## WORK EXPERIENCE

### Open Source

### InterMine, University of Cambridge

April 2018 – May 2018

- Designed and developed a search tool that was responsible for aggregating results from multiple integrated databases via InterMine client libraries and APIs
- Optimized the usage of the APIs to fetch and render the search results with minimum lag

### Research Intern

### IIT Kharagpur

May 2017 – July 2017

- Implemented a smart grid communication system in C++ and analyzed its performance metrics
- Achieved 3.1 % rise in the packet delivery ratio, 15.7 % rise in the throughput and 35.6 % fall in the latency compared to the current smart grid communication systems
- Automated formatting of large input datasets using python scripts

## PROJECTS

All the Projects listed below are available at <https://github.com/himanshukumar660>

- **Grievance Redressal System** : Developed a grievance redressal system based on thin client model using Express framework and MongoDB database. Designed multiple REST APIs to perform modifications to the database.
- **Feedback System** : Developed a feedback system based on thick client model using MongoDB database and Express Framework. Performed all the CRUD operations via asynchronous REST API calls.
- **Typing Speed** : Developed a cross-platform desktop application in C++ using the principles of object oriented paradigm.
- **Resource Allocation system** : Developed and implemented an algorithm to maximize the matching of user to resource assignment with the user preference and generate the new list of assignments in PDF format.
- **Movie Recommendation System** : Implemented a recommendation system using slope one to figure out similarities between users and make recommendations.
- **Address Verification** : Developed a web app to verify and validate any user input address using GMaps REST APIs.

## RELEVANT COURSES

Data Structures and Algorithms, Operating Systems, Software Engineering, Database Management Systems, Theory of Language translation, Computer Networks, Object Oriented Programming

## SKILLS AND TECHNOLOGIES

- **Languages** : C++, C, Python, JavaScript
- **Frameworks/Tools** : Git VCS, MySQL, MongoDB, Regex, AJAX, REST, Express.js

## ACHIEVEMENTS AND AWARDS

- Selected as a student mentor for an open source contribution programme, Kharagpur Winter of Code, 2018.
- Among the top 2% students in Information Technology branch at college.
- Awarded with meritorious student award from Kendriya Vidyalaya Sangathan and Indian Coast Guard for securing regional rank 1 and rank 4 in AISSE 2013 and AISSCE 2015 respectively.

## CO-CURRICULAR ACTIVITIES

- Designed and developed a portfolio website for an NGO, Building Dreams Foundations, using HTML, CSS, and JavaScript. Improved UI based on user feedback.
- Conducted workshops on web development for 150+ students.
- Web Development lead at GNU Linux Users Group, NIT Durgapur (March 2018 - Present).