

# Himanshu Kumar

🔗 himanshukumar660 • himanshukumar660@gmail.com • +919476001014 • in himanshu-kumar-883648118

## EDUCATION

**B.Tech in Information Technology, Senior Year** **2015 – 2019\***

**National Institute of Technology Durgapur, West Bengal, India**

- CGPA: 9.26/10, Merit Position: 3rd

**High School – Kendriya Vidyalaya Raksha Vihar (CBSE), Score – 95%, Merit Position: 1st** **2015**

**Secondary School – Kendriya Vidyalaya Minambakkam (CBSE), Score – 95%, Merit Position: 1st** **2013**

## WORK EXPERIENCE

<b>Open Source</b>	<b>InterMine</b>	<b>April 2018 – May 2018</b>
<ul style="list-style-type: none"><li>• Designed and developed a centralized search tool as a web application that aggregated results from InterMine integrated databases via its client libraries and APIs</li><li>• Optimized the APIs to fetch and render the search results with minimum lag</li></ul>		

<b>Research Intern</b>	<b>IIT Kharagpur</b>	<b>May 2017 – July 2017</b>
<ul style="list-style-type: none"><li>• Implemented a smart grid communication system in C++ and analyzed its performance metrics</li><li>• Achieved a 3.1% rise in the packet delivery ratio, a 15.7% rise in the throughput and 35.6% fall in the latency compared to the current smart grid communication systems</li><li>• Automated the formatting of large input datasets using python scripts</li></ul>		

## PROJECTS

- **Review 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.
- **Grievance redressal system:** Developed a grievance redressal system based on thin client model on Express.js framework and MongoDB database. Designed multiple REST APIs to perform modifications to the database.
- **Data compression tool:** Implemented multiple data compression algorithms (Shannon–Fano, LZW, and Huffman) in C++ for lossless compression of ASCII encoded files.
- **Medical prescription tool:** Developed a full stack application on Express.js framework and MongoDB database in which user gets medical prescription and possible diagnosis based on his search query or selected symptoms.
- **Typing speed:** Developed a cross-platform desktop application in C++ using the principles of object-oriented paradigm to measure typing speed.
- **Resource allocation system:** Developed and implemented an algorithm to maximize the matching of the user to resource assignment according to 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.

## SKILLS AND TECHNOLOGIES

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

## ACHIEVEMENTS AND AWARDS

- Among the top 2% students in Information Technology branch at college
- Ranked 448 among 8500+ participants in CodeAgon HackerRank Coding Challenge, 2018
- Solved around 500+ programming problems on different online judges (Spoj, LeetCode)
- Achieved Amul Vidya Bhushan Award 2015, for academic excellence in CBSE AISSE 2015.

## CO-CURRICULAR ACTIVITIES

- Mentored students for open source contribution during Kharagpur Winter of Code, 2018
- Conducted workshops on web development for 150+ students
- Core technical member and Web development lead at GNU Linux Users Group, NIT Durgapur.