

Kautuk Raj

Computer Science and Engineering

International Institute of Information Technology, Bangalore

Email : kautukraj@gmail.com

Phone : +91-9608383818

Academic Details

Year	Degree	Institute	CGPA / %
2019-2024 (expected)	Integrated M.Tech in Computer Science and Engineering	International Institute of Information Technology, Bangalore	3.76/4
2019	Class XII, ISC	Narbheram Hansraj School, Jamshedpur	97%
2017	Class X, ICSE	Rajendra Vidyalaya, Jamshedpur	97%

Relevant Courses

- **Computer Science:**
Data Structures and Algorithms, Discrete Mathematics, Digital Logic Design, Computer Architecture, Computer Networks, Design and Analysis of Algorithms, Database Systems, Software Engineering, Theory of Computation, Machine Learning, Cloud Computing, Cybersecurity, Multi-Agent Systems, Operating Systems, Programming Languages
- **Mathematics:**
Calculus, Linear Algebra, Differential Equations, Abstract Algebra, Probability and Statistics, Mathematics for Machine Learning

Internships

- **Tata Steel, Jamshedpur** (May - July, 2021)
Mentor: Rahul Kumar
 - Implemented a machine learning model for real-time detection and classification of safety gear (like helmet, fluorescent jacket, etc) worn by workers in the plant premises.
- **Big Data Analytics Lab, IIIT Bangalore** (May, 2022 - present)
Mentor: Prof. Vinu EV
 - Working on the research problem of scalable stream reasoning using Owlready2, Protege, Apache Spark, Apache Kafka, etc.
- **Center for Sustainable Mobility, IIIT Delhi** (May, 2022 - present)
Mentor: Prof. Anuj Grover
 - Working on the research problem of low-cost GPS modules for e-rickshaws and auto-rickshaws to improve last mile connectivity in Delhi, India.

Key Projects

- **Kaggle Malware Prediction Competition** (October - November, 2021)
Mentor: Prof Neelam Sinha
 - Competed in the Kaggle competition for malware classification. Carried out batch-wise processing due to the big data nature of input, tried out various strategies for high classification accuracy and finally settled on a LightGBM setup.
- **Data Processing using Hadoop MapReduce** (February 2022)
Mentor: Prof Vinu EV
 - Processed, analyzed big data sources (Wikipedia entries) and ran semantic queries on it using Hadoop MapReduce, a distributed computing algorithm, in Java.
- **Edge Computing using EdgeX Foundry** (April 2022)
Mentor: Prof Vinu EV
 - Created a mood lighting setup for a room using LEDs, Raspberry Pi (hardware end) and EdgeX Foundry, Docker, Python (software end).
 - Computing was carried at the edge of the network, free from network constraints and latency.

Scholastic Achievements

- Part of the **Dean's Merit List** at IIIT-B for excellent academic performance, for three consecutive years.
- Secured a %ile of 99.43 in JEE Main (2019), among 1.2 million candidates.
- Among the top 1%ile of the ISC examination (class 12), conducted by CISCE.

Technical Skills

- **Programming Languages:** C, C++, Python, Java, \LaTeX , Verilog, MATLAB, SQL

Extra Curricular Activities

- National semi-finalist on News Wiz 2016, India's first and biggest news quiz, broadcast on India Today TV.
- National finalist on Travel Quest 2015, India's first nationwide travel quiz, an initiative by Thomas Cook.
- Regional finalist on TCSITWiz 2014, India's biggest IT quiz, conducted by Tata Consultancy Services.
- Three-time winner of the JRD Tata Memorial Quiz (2014, 2015, 2016), organised in memory of the industrial pioneer by Tata Steel.