

# Kaustav Ghosh

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## EDUCATION

### Manipal Institute of Technology

2018-2022

BTech in Computer Science & Engineering specializing in Computational Intelligence **Lab Work:** [\[Repository\]](#).

CGPA: 8.57/10

**Courses Taken:** Database Management Systems, Operating Systems, Computer Networking, Compilers, Object Oriented Analysis And Design(OOPs), Digital Logic Design, Computer Organization And Architecture, Distributed Systems, Parallel Computing

## WORK EXPERIENCE

### • Hevo Data, Bangalore - Software Development Engineer Intern

Jan'22-Jun'22

- Worked in the backend integrations team where I designed and implemented an end-to-end **REST API connector** and **SDK** for the data source, Braze, a software as a service (SaaS) platform, by deciding the source objects, the polling strategies, building the SDK authentication, models, client, and the connector offset, tasks, and services for polling each source object.
- Worked on debugging several issues on already existing connectors tracked by **Sentry** and **Coralogix**, wrote suitable documentation and developed unit tests for Outbrain using **JUnit** and **Mockito** and which were subject to code review.
- Worked on resolving Google Big-Query and Marketo On-call issues supported with Senior developers

### • Samsung R&D, Bangalore - Software Development Engineer Intern

Jun'21-Jul'21

- Designed and implemented **MQTT bridge functionality** in Moquette, an open-source lightweight Java MQTT broker
- Implemented a **socket programming system** for the transfer of messages between the MQTT message broker and the bridge client and also a **lexical analyzer** to parse the user-specified configuration of the bridge properties and the bridge client

## RESEARCH WORK

### • Samsung PRISM - Machine Learning Intern

Sep'20-Mar'21

#### Intelligent Ranking for Dynamic Restoration of Next Generation Wireless Networks

- Implemented Machine Learning algorithms and Feature Engineering techniques to predict KPI values for eNodeB-s and consequently a ranking system to orderly restore them during a network failure.

## PROJECTS

### • Noteups - A Lecture Notes sharing platform [\[Repository\]](#).

- Implemented the front-end using **React library**, **Redux Toolkit** and **RTK Query** for state management, **Framer Motion** for animations and **Styled Components** for styling, **Media Queries** for responsive design, **Sass** for CSS pre-processing
- Implemented the back-end using **NodeJS** and **ExpressJS** framework for server-side rendering, used **MongoDB** as a non-relational(NoSQL) database and, Cloudinary for images storage and **PassportJS** for JWT and OAuth authentication.
- Implemented functionality to synchronize the note products between **Cloudinary** and **MongoDB**. and integrated **Stripe** for payment processing and working on integrating Razorpay.
- Deployed on the cloud with the frontend on **Netlify** and the backend on **Heroku**. **Deployed Links:** [\[Frontend\]](#) [\[Backend\]](#).

### • Freelancing standalone web development projects

- Implemented a JSON Web Token Authentication system for a **NodeJs** backend. [\[Project\]](#).
- Developed a Movie-Ticket booking website using **MongoDB**, **Node.js** and **Express**. [\[Project\]](#).
- Developed a project management application using **Python**, **Postgres**, and **psycopg2**. [\[Project\]](#).
- Developed a horizontal non-linear stepper form using **ReactJS** [\[Project\]](#).

### • Microsoft Student Partners - Machine Learning Bootcamp

- Demonstrated leadership skills by mentoring a team of 10 individuals to accomplish a Regression task of price prediction of cars in a machine learning pipeline through Exploratory Data Analysis, Feature Engineering and Model Building. [\[Minor\]](#). [\[Major\]](#).

### • Finland Labs & IIT Roorkee - Time Series Forecasting, Data Analysis and Web Scraping

- Prepared a complete Data Analysis report on Worldwide COVID-19 attack statistics and used Facebook's Fbprophet Time-series Forecasting library to speculate the number of active corona victim cases in the upcoming days. [\[Project\]](#).

## TECHNICAL SECTION

**Data Structures, Algorithms and Competitive Programming:** Collection of coding problems [\[Repository\]](#).

**Programming Languages:** Fluent in C/C++, Java, Javascript, Python, Bash, Familiar with Oracle SQL, LATEX, Linux Shell Scripting

**Development:** Proficient in HTML5, CSS3, JavaScript, MERN tech stack. Familiar with Typescript, Next.js, GraphQL, Microservices

**Tools, Technologies and Methodologies:** Version control using Git, Github, Google Colab, Firebase, Docker, Kubernetes(basics), MySQL, PostgreSQL, Postman, Jira, Confluence, Redis(basics), Maven, Linux, Agile, Scrum.