

# Manas Pratim Biswas

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## EDUCATION

### JADAVPUR UNIVERSITY

#### BE IN INFORMATION TECHNOLOGY

2020-2024 | Kolkata, India

CGPA : 8.6/10

### RKMV NARENDRAPUR

#### WBCHSE SCIENCE

2018-2020 | Kolkata, India

Percentage : 97.4

## COURSEWORK

Data Structures and Algorithms  
Object Oriented Programming  
Object Oriented Systems  
Database Management Systems  
Operating Systems  
Discrete Mathematics & Statistics

## SKILLS

### PROGRAMMING LANGUAGES

C/C++ • Java • Python • JavaScript  
TypeScript • SQL • Markdown • Shell

### TOOLS & TECHNOLOGIES

Git • GitHub Actions • AWS • Render  
Firebase • Docker • Parcel • Vite

### FRAMEWORKS & LIBRARIES

STL • Boto3 • Bootstrap • MUI • React  
Express • Node.js • Socket.IO • FastAPI  
NumPy • Pandas • Seaborn • Matplotlib  
scikit-learn • Google Maps API • REST API

### DATABASES

MySQL • PostgreSQL • MongoDB  
Mongoose • Prisma • Redis

### OPERATING SYSTEMS

macOS • Unix/Linux • Windows

## LINKS

GitHub:// [sanam2405](https://github.com/sanam2405)  
LinkedIn:// [manaspratimbiswas](https://www.linkedin.com/in/manaspratimbiswas)  
LeetCode:// [naxal](https://leetcode.com/naxal)  
Codeforces:// [naxal](https://codeforces.com/profile/naxal)  
CodeChef:// [sanam24](https://www.codechef.com/sanam24)  
AtCoder:// [sanam24](https://atcoder.jp/users/sanam24)  
StopStalk:// [sanam24](https://stopstalk.com/sanam24)  
Portfolio:// [sanam.live](https://sanam.live)

## EXPERIENCE

### CERN | Google Summer of Code Contributor

May 2023 - November 2023 | Technology : Python • Profiling • ML

- Contributed to GSoC at [CERN-HSF](#). Estimated the energy cost of a high throughput research software - Baler used for compression of scientific data
- Monitored, visualized and accelerated Baler's data compression, reducing CPU & Wall Clock time by 20% through Deterministic & Non-Deterministic Profiling enhancements using cProfile, pyinstrument, matplotlib and seaborn
- Achieved an 18% reduction in power consumption and CO<sub>2</sub> Emissions via identifying bottlenecks using powermetrics, influxdb, scalene and codecarbon

### RAZORPAY | Software Development Engineer Intern

June 2023 - August 2023 | Technology : Python • SQL • AWS • Docker

- Worked with the DevSecOps team at [Razorpay](#) as a SWE Intern
- Reduced AWS issue remediation time by 15%, automating Pingsafe fixes on IAM, ELB, KMS, DynamoDB via a single cross-account AWS Lambda function
- Minimized security vulnerabilities by 20%, scanning all Spinnaker pipeline stages that improved the CI/CD process by saving 10 hours weekly
- Supervised and tailored the migration of 5 dashboards with 70+ charts from Looker to Superset via complex SQL queries from the Razorpay data lake

## PROJECT

### PRIVACY NETWORK | MERN, TYPESCRIPT, SOCKET.IO, POSTGRES SQL POSTGIS, REDIS, & DOCKER

November 2023 - Present | Kolkata, India

- Developed a web-app for a [Privacy-Preserving Efficient Location-Sharing Scheme for Mobile Online Social Network Applications](#)
- Added robust authentication and authorization functionalities for seamless and highly secure Sign-up, Login, and Logout activities
- Integrated [Socket.IO](#) for real-time location sharing based on privacy filters and [react-google-maps/api](#) to render live locations on the map
- Used [PostGIS](#) for querying user location based on gender, age and college
- Engineered scalability and consistency with Docker

[CODE](#) | [LIVE](#)

### MEMECACHE | C++ STANDARD TEMPLATE LIBRARY & DESIGN PATTERNS

February 2024 - March 2024 | Kolkata, India

- Developed a minimal, thread-safe, in-memory caching library for general use
- Currently supports *FIFO*, *LIFO* and *LRU* cache eviction policies and can also extend custom cache eviction policies

[CODE](#) | [LIVE](#)

## ACHIEVEMENTS

|      |                                   |                                       |
|------|-----------------------------------|---------------------------------------|
| 2023 | <a href="#">LeetCode Guardian</a> | Rated 2205 - Top 1% globally          |
| 2022 | <a href="#">Summer Scholar</a>    | Amazon Machine Learning Summer School |