

# Manas Awasthi

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## SUMMARY

Software Engineer with 3.5+ years of experience architecting and developing enterprise-grade SaaS platforms and microservices. Proven track record of delivering scalable cloud-based solutions with significant performance improvements. Expert in JavaScript, Node.js, Python, Mongo, and PostgreSQL, with strong expertise in system optimization, and database design. Experienced in microservices architecture, caching strategies, and cloud infrastructure management. Strong background in open-source contributions including Google Summer of Code participation.

## EDUCATION

### University of Delhi

New Delhi, India

Bachelors of Technology – Information Technology and Mathematical Innovation

Jul. 2017 - Jun. 2021

- Minors: Computational Biology and Systems Biology

## PROFESSIONAL EXPERIENCE

### Roadzen, New Delhi, India

Sep 2021 to Present

#### Software Engineer

##### StrandD - B2B Roadside Assistance Platform

- Led US version product development including database schema design and implementation of crucial features such as **Recommendation Engine** for provider suggestions and integrating **PayPal Payment Gateway**.
- Led end-to-end development of **critical features** that improve user experience and platform functionality. Coordinated with product and design teams for feature delivery.
- Conducted comprehensive module refactoring achieving **30% improvement in response times** in case creation flow and **25% reduction in technical debt**.
- **Optimized PostgreSQL** queries and implemented Redis caching reducing **database load by 35%**
- Developed comprehensive **REST APIs for both web and mobile applications**, implementing authentication, data validation, and **PubNub** real-time notifications to support seamless cross-platform functionality.

##### Canvas - Cloud-Based SaaS Data Pipeline Platform

- Worked on development of enterprise-grade cloud-based SaaS product revolutionizing data processing for ML/DL models, achieving **80% improvement** in data processing speed
- Designed and managed **scalable database architecture** handling **2.6M+ images** with ML-powered damage detection, parts identification, and vehicle classification
- Implemented caching strategies and query optimization resulting in **40% reduction in processing time** and **60% improvement in system throughput**

### Google Summer of Code, Remote

May 2019 to Aug 2019

#### Student Developer: National Resource for Network Biology

- Selected as one of **100 first time undergraduates** to contribute to the program.
- **Unified the databases** used to mark secondary identifiers in BridgeDb **improving identification of proteins by 40%**.
- **Developed a tool** to extract Resource Description Framework data from the metabolite/derby database currently in use by over **30,000 researchers across the world**.
- **Enhanced BridgeDb functionality** by implementing secondary identifier support, expanding **protein database coverage by 40%**. Increased **test coverage by 20%** using JUnit5 and added **Java 11 compatibility**

## Skills

**Language & Frameworks:** JavaScript (ES6+), TypeScript, Python, Java, Node.js, ExpressJs

**Databases & Storages:** PostgreSQL, MongoDB, Redis, Elasticsearch

**API & Protocols:** REST APIs, GraphQL, PubNub, WebSockets

**Tools & Platforms:** Git, JUnit5, Groovy, Derby, Cursor

## ACHIEVEMENTS

- Secured **1st position** at Blitzkrieg 2018 in Coding Competition.
- Secured **2nd position** at Esya 2017 at IIIT Delhi in 'Maze solving using Line Following Robot'
- Published a **research paper** under Google Summer of Code listing contributions from Brenninkmeijer, Christian Y., Egon Willighagen, **Manas Awasthi**, Stian Soiland-Reyes, Anders Riutta, Alexander Pico, Ian Dunlop et al. "BridgeDb 3.0. 4." (2021).