# Samya Brata Maji

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# Experience

### Venus Remedies Limited

Dec 2023 - Present

Full-stack Engineer

Remote, Freelancing Contract

- Created a design system and high-fidelity designs for 8 pages in figma, built front-end in framer and nextjs,
- Added user authentication system and built user dashboard in nextjs where users can upload their information.
- Built an internal admin dashboard where admins can manage users, observe metrics and invite collaborators with different access permissions.
- Optimized the website, reducing FCP and LCP by 30%.

**Baires Dev** 

April 2023 - Nov 2023

**Technical Writer** 

Remote, Freelancing Contract

- Published articles on Java's Garbage Collection, Concurrency & Multi-threading, Unit Testing, Integration testing, Smoke testing, Shift Left Approach, etc.
- Read by 40,000+ developers worldwide.
- Closely collaborated with Baires Dev's editorial team to produce high quality articles.

# **Projects**

#### SamScript - Programming Language | Typescript, Java

- A dynamically typed multi-paradigm programming language built from scratch using Typescript and Java only.
- Built language features like lexical scoping, if-else, loops, functions, classes and objects.
- Designed and created a garbage collector for automatic memory management, created libraries for asynchronous programming, concurrency and multi-threading, measuring time, etc.

# **DNS Server** | Typescript, Node.js, Dgram

- Hands-on project to learn the underlying mechanics of DNS servers, analyzing UDP packet structures, and delving into network protocols; deepened understanding of network infrastructure and packet-level communications.
- Implemented header compression, recursive resolve and caching.
- Added security measures to protect against vulnerabilities like DDoS attacks and circular requests.

#### **Typer** | Next.js, Prisma, PostGreSQL, Redis

- A tool to help people learn touch typing
- Implemented user authentication, subscriptions, realtime typing competitions (using redis), analytics, etc.

#### **LabForAll** | React, Firebase, Three.js, CSS

- Developed a platform where student can get information about experiments.
- Created an interactive simulation of the solar system using three.js.

#### Technical Skills

Languages: Javascript, Typescript, Java, Python, C, C++, Rust, OCaml

Web: React.js, Next.js, TailwindCSS, Nodejs, Express, Prisma, tRPC, GraphQL, jQuery, Docker, Kafka

Databases & Cloud: PostGreSQL, MongoDB, Redis, AWS (EC2, S3, SES, VPC, RDS)

**Testing**: Jest, Cypress, Test Containers

#### Achievements

- Winner of Hack Around The World 2.0, by MLH Hacks, a global hackathon that received 1000+ participants.
- Winner of Mackathon, an intra-university hackathon under National Smart India Hackathon 2023.
- Contributed to open source softwares like Cal.com, Supabase and Metamask.
- Maintains npm packages like ts-collections and use-timer, with 10,000+ downloads.

#### Education

# Maulana Abul Kalam Azad University Of Technology

July 2023

Bachelor of Technology in Computer Science and Engineering (B. Tech. CSE)

Kalyani, India

• Relevant Coursework: Data Structures and Algorithms (Java), Data Analysis in Pandas (Python), DBMS and Operating Systems.