Arka Ghosh

Full Stack Developer

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Summary

I am a Full Stack Developer having strong knowledge of JavaScript, Python and MySQL. My focus has been on writing efficient and structured codes. I am also proficient in Java for programming and familiar with modern web technologies including HTML, CSS, JavaScript, React.js, Node.js, Express.js and MongoDB. I can perform end to end frontend development and backend data handling.

Skills

Programming Languages: Java, Python, JavaScript
Web Technologies: HTML, CSS, JavaScript (ES6+)
Frontend Development: React.js, Next.js
Backend Development: Node.js, Express.js
Databases & Querying: MongoDB, MySQL

Projects

QuickMeet | *JavaScript, MongoDB, Express, React, Node, WebRTC, Socket.io*   **October 2025 – December 2025**

- Architected a real-time video conferencing platform using WebRTC mesh topology, enabling peer-to-peer HD video/audio streaming.
- Implemented Socket.io signaling server handling SDP offer/answer exchange and ICE candidate negotiation, **achieving 90% successful connection rate** across NAT configurations.
- Built secure **Crypto-based authentication system** with bcrypt password hashing, managing user sessions and meeting permissions for host/participant roles.
- Developed **Responsive React UI** with dynamic grid layouts, screen sharing, real-time chat and dark/light theme toggle with localStorage persistence.
- Created fallback media streams (black video/silent audio tracks) for graceful handling of device permission denials, improving UX on restricted browsers.

StayVerse | *JavaScript, MongoDB, Express, EJS, Node, Passport.js, Cloudinary, MapTiler*   **July 2025 – August 2025**

- Developed a full-stack property rental platform with **15+ sample listings** across **15+ countries**, enabling users to create, browse and review accommodations with CRUD operations and Cloudinary CDN image upload.
- Implemented secure **Passport.js authentication system** with MongoDB session store, featuring **7-day session persistence**, encrypted cookies and role-based authorization middleware for owner/author permissions.
- Integrated **MapTiler geocoding API** converting addresses to GeoJSON coordinates, rendering interactive maps with custom markers and **5-star rating system** for **3 data models** (Users, Listings, Reviews).
- Built **RESTful API with 12+ routes** following MVC architecture, **6 middleware functions** for authentication/validation and Joi schema validation reducing invalid data submissions by **95%**.
- Designed responsive EJS templates with **Bootstrap 5** featuring **11 category filters**, GST tax toggle, flash notifications and cascading delete functionality maintaining referential integrity.

Awards & Certifications

- **McKinsey Forward Program (2025)**: Completed a free, 10-week online career accelerator by McKinsey.org designed to build practical, transferable workplace skills such as solving, effective communication, adaptability, relationship building and digital fluency through interactive digital courses, assignments and virtual learning experiences, earning a shareable digital badge and joining a global learner network upon completion.

Education

B. Tech - Computer Science Engineering   **2024 - 2028**
Guru Nanak Institute of Technology, Sodepur   *CGPA: 8.08 / 10*