# Santhosh Kumar M

## Full Stack Developer

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## **Professional Summary**

Skilled full-stack developer proficient in the MERN stack and Python, with a focus on building scalable, efficient and user-friendly web applications. Possesses strong problem-solving abilities, keen attention to detail and a commitment to continuous learning. Experienced in RESTful APIs, database management and performance optimization. Looking forward to contributing to innovative projects, collaborating with dynamic teams and leveraging new technologies to deliver high-quality, impactful solutions.

## **Skills**

**Languages**: Python, Java, JavaScript (ES6+)

Frontend: HTML5, CSS3, Bootstrap, React.js | Backend: Node.js, Express.js | Databases: SQL, MongoDB

Tools & Platforms: GitHub, Postman, Jira, ChatGPT, Codeium

Other: RESTful APIs, CRUD Operations, Redux, Responsive Web Design, Agile Development

**Soft skills**: Analytical thinking, problem-solving, attention to detail

## **Projects**

#### **MERN CART (E-Commerce Website)**

**Backend Development** 

Technologies: Node.js, Express.js, MongoDB, React

- Developed a scalable backend using Node.js, Express.js, and MongoDB, implementing RESTful APIs for authentication, product management, orders, and cart functionality.
- Implemented JWT-based authentication with bcrypt.js for password hashing and role-based access control to enhance security.
- Designed an optimized MongoDB schema with indexing and data population to improve query performance.
- Created custom middleware for error handling, input validation (express-validator) and API security (CORS, helmet, rate limiting).
- Used Multer for image uploads, ensuring efficient handling and storage of product images.
- Rendered the frontend dynamically using React, Axios, and Redux, ensuring efficient state management and seamless API integration
- Collaborated with a project partner responsible for frontend development, ensuring smooth API integration and seamless data flow.

**Links:** GitHub Repository, API Documentation

#### **Natours (Tour Booking Website)**

**Backend Development** 

Technologies: Node.js, Express.js, MongoDB, Pug

- Built a scalable backend using Node.js, Express.js and MongoDB, implementing RESTful APIs for tours, users, bookings, and reviews.
- Integrated JWT authentication & RBAC with bcrypt.js, ensuring secure access control and session management.
- Optimized MongoDB queries with indexes, aggregation pipelines and geospatial queries for efficient location-based searches.
- Developed middleware for security using Helmet, Rate Limiting, XSS protection, data sanitization, and error handling

Links: GitHub Repository, API Documentation

## Mini Projects

#### **Geekminds (IT services website)**

**Frontend Project** 

Technologies: HTML5, CSS3, Bootstrap, JavaScript

- Developed a responsive portfolio website for an IT/software company to showcase services and past projects.
- Designed a modern, professional layout using Bootstrap, ensuring seamless responsiveness across devices.
- Implemented smooth scrolling, interactive navigation and engaging animations to enhance user experience.

**Links:** GitHub Repository

#### **Ping Pong Game (Python)**

- Developed a two-player Ping Pong game using Python's Turtle module, implementing paddle and ball mechanics.
- Integrated collision detection and scoring system, ensuring realistic gameplay and dynamic interactions.
- Followed modular design principles, organizing code into separate classes for improved readability and maintainability

30+ Mini Python Projects: Github Repository

#### **Education**

B.E in Civil Engineering from PSNA College of Engineering and Technology, Dindigul | 2021 | 73% HSC in Velammal Matriculation Higher Secondary School, Madurai | 2017 | 71% SSLC in Velammal Matriculation Higher Secondary School, Madurai | 2015 | 88%

## **Work History**

## IT Upskilling & Projects | Self-Learning

July 2024 - Present

- Built a strong foundation in programming languages, focusing on writing clean, efficient, and optimized code.
- Explored core Computer Science concepts, including data structures, algorithms and problemsolving techniques.
- Attended bootcamps and completed hands-on projects in full-stack development, APIs and database management.
- Learned modern technologies, including the MERN stack and improved coding best practices.
- Consistently solving problems on LeetCode and GeeksforGeeks to enhance problem-solving skills and algorithmic thinking.
- Strengthened analytical and debugging skills by optimizing code performance and handling realworld challenges

#### **Casagrand private Limited, Chennai**

**Quantity Surveyor** 

Feb 2023 - Jun 2024

- Estimated project costs, prepared budgets, and managed contracts to ensure cost efficiency.
- Conducted material quantity take-offs, vendor negotiations and financial reporting for projects.

#### Omega constructions, Madurai

**Site Engineer** 

Sep 2021 - Jan 2023

- Supervised and co-ordinated on-site construction activities, ensuring adherence to project specifications
- Led site operations, ensuring seamless execution of construction activities while maintaining safety and quality standards.

#### **Certifications**

- Node.js, Express, MongoDB Bootcamp Udemy
- Agile Project Management Certification Prep (Agile Scrum & Jira) -Udemy
- The Complete Python Bootcamp -Udemy Web Development Bootcamp - Udemy