

Purandhar Sundaramoorthy

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EDUCATION

Binghamton University, State University of New York

Master's in Computer Science

Aug 2022 - Aug 2024

Design & Analysis of Algorithms, Database Systems, Cloud Computing, Web Programming, Design Patterns, Software Project Management, Computer Architecture, Operating Systems, Programming Languages

Anna University, India

Bachelor's of Engineering in Electrical and Electronics

Aug 2015 - May 2019

Computer Programming, Object Oriented Programming(OOP), Data Structures & Algorithms, Embedded Systems

TECHNICAL SKILLS

Languages: Python, Javascript, TypeScript, Java, C, C++, SQL

Database: MongoDB, MySQL, PostgreSQL, Oracle

Tools: Linux/Unix, VScode, Git, Jira, Postman, Figma, Grafana

Web-Development: HTML5, CSS3, ReactJS, NodeJS, GraphQL, Jest

Data: ETL, PowerBI, Tableau, Pytorch, Matplotlib, Tensorflow, Keras

Cloud & Containerization: AWS, GCP, CI/CD, Docker, Kubernetes

PROFESSIONAL EXPERIENCE

Entertainment Technologies Inc., Software Development Intern | California, USA

July 2023 – May 2024

- Created a UI/UX for a media management platform, integrating REST APIs with ReactJS for a responsive frontend from Figma.
- Integrated 4 vendor APIs, tested features for suitability, and validated them via HTTP, achieving a 90% functionality success rate.
- Debugged 20+ complex issues in web pages, addressed bugs related to business requirements, and ensured adaptive responsiveness.
- Communicated in an Agile development environment for, software design, code management, and version control with GitHub
- Assisted the team with DevOps and CI/CD release management using AWS achieving a 40% reduction in deployment time
- Coordinated in 10+ code reviews, scrum meetings, and cross-functional technical support meetings from the frontend team
- Developed Python software to handle file processing and efficiently parse vendor data into JSON format for seamless integration.
- Adapted to new technologies in AWS cloud services for media workflow orchestration, with a focus on S3, Python-based Lambda functions, AWS Glacier, IAM, and CloudWatch

Systech Solutions, Associate Software Engineer | Chennai, India

Nov 2021 – Mar 2022

- Developed the frontend of Dopplr with HTML, CSS, and JavaScript to create storyboards and dashboards for 1000+ users
- Built with a component-based architecture using React and Hooks, managed state with Redux, and applied ES6 standards.
- Collaborated with AI/ML engineers to integrate Machine Learning predictions to 10+ backend API endpoints via HTTP
- Worked with the server-side team to receive prediction data from the analytics layer, including metadata and confidence scores.
- Parsed the data in JSON format and sent it to the client side via a RESTful API using TypeScript to reduce runtime errors by 30%.
- Created Python software to automate and generate SQL queries across relational databases using metadata, enhancing query efficiency by 60%.

Apar Innosys, Associate System Analyst | Chennai, India

Mar 2020 - Oct 2021

- Designed a SaaS platform for managing, visualizing, and analyzing IoT devices through a web application supporting 2000+ devices
- Developed a Python backend with an MQTT broker to publish real-time data, ensuring high availability and reducing data latency by 25%.
- Built a Node.js server to subscribe to MQTT topics, and send it to the frontend via RESTful API and WebSockets for real-time monitoring
- Maintained and redesigned frontend web applications using JavaScript and HTML to display IoT device statuses and data, delivering a user-friendly interface for real-time monitoring while reducing code complexity by 20% through clean code practices
- Deployed scalable cloud solutions with AWS S3 and Lambda for efficient data and video storage, handling up to 5TB of data
- Executed testing and debugging, achieving 80% reliability and uptime in IoT integrations and backend services operations
- Planned to perform code reviews, troubleshoot issues, and mentor 5 engineers, focusing on teamwork in a collaborative environment.
- Improved system stability by 10% through troubleshooting and problem-solving, analyzing 10 million data samples with Python tools such as NumPy, SciPy, and Pandas for data visualization, and deciding on optimizing product performance

PROJECT EXPERIENCE

Social Media Web Application

May 2022

- Developed the full-stack application with system design to deployment, enabling users to post, comment, like, and manage friend requests.
- Tech Stack: React.js (frontend), Node.js (backend), GCP (Blob storage), MongoDB (database), Render (CI/CD), Git (version control)

Event Scheduler as a MicroService

June 2023

- Engineered a web service for meeting scheduling with flight and theatre booking capabilities for customers, with React and Tailwind CSS
- Devised NodeJS for backend development, routes, and database integration, with Express for middleware and Axios for API calls

Cloud-based Chat Application Deployment

Nov 2023

- Deployed a Python Flask web server and MongoDB database on GCP VMs, with Docker for DevOps-driven CI/CD and automated scaling
- Hosted containerized live messaging microservices via Docker on a Kubernetes cluster using YAML files for deployment orchestration.

Data Analysis and Visualization

Dec 2022

- Implemented data engineering concepts and performed ETL on JSON data for a fire incidents dataset using a non-relational database.
- Analyzed 10 million samples with PyMongo and visualized data with Power BI to identify seasonal and district trends for preplanning.

CERTIFICATIONS

- IntelliPaat - Full Stack Web Developer - MERN Stack (MongoDB, Express.js, React.js, Node.js) and Microsoft SQL

Apr 2022