

# 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

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

Apr 2022