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Nitin Ramesh

Work Experience

Software Engineer **SAP LABS** **June 2022 – Present**
Bangalore, India

- Got exposure to Kubernetes and deploying scalable systems.
- Configured CI / CD pipeline with Drone.
- Introduced TDD and clean coding practices to the team.
- Built systems using NodeJS and Golang.

Software Engineer **SIEMENS** **July 2018 – June 2022**
Bangalore, India

- Lead the development for 3 edge app projects and took part in the development of 1 embedded system project.
- Proactively collaborated with multiple external stakeholders from 4 different geographical locations to ensure smooth progress in the product development.
- Implemented clean code using SOLID design principles and software design patterns to adapt easily in an agile and ever changing environment.
- Up-skilled the team with Test Driven Development (TDD) and Behavior Driven Development (BDD) practices, which helped us deliver robust software.
- Self taught multiple modern technologies to quickly develop and deliver 1 POC and 2 MVPs which helped us get faster feedback from customers.

Education and Certifications

- **M.Tech. Data Science,** Birla Institute of Technology and Science, India. **2020 - Present**
- **B.Tech. Computer Science,** SRM University, India. **2014 - 2018**

Technologies and Languages

- Languages: Typescript, Javascript, Golang, C++, Python, HTML, CSS
- Frameworks: Node.js, Express.js, Angular, React.js, Bootstrap, Qt, Flask, Cucumber, Jest
- Tools: Git, TFS, CMake, Docker, Kubernetes, VS Code

Projects

- **CBC Authoring**
  - A one stop solution to configure multiple SAP ERP cloud products.
  - Built VSCode extension with NodeJS for Content Authoring.
  - Developed CLI using Golang for Authoring template (JSON) creation, validation, packaging and deployment.

- **Edge App: PLC Configuration**
  - Delivered a SAAS app for the edge ecosystem that is used for configuring Omron, Allen Bradley, Mitsubishi PLC. Using a common configurator for all PLC reduced the app size on disk by 50%.
  - Tech stack used are Angular, Node.js, Express.js, C++ and Docker.
  - Used REST API, Websockets, GRPC and MQTT as mode of communication between the various services.

- **Connection Broker**
    - Developed a web based connection broker, for managing connections between Siemens ITC devices and industrial plant devices such as IPC, HMI Panels, Edge Boxes .etc.
    - Tech stack used was Angular, Node.js, Express.js and Docker.
    - Used REST API and MQTT as mode of communication between the various services.

- **Web Engineering System**
    - Built a web based engineering system for Siemens Comfort 2nd Gen Panels, which is expected to increase the feature delivery cycles for the panel runtime by 4x.
    - Tech stack used are React.js, Node.js, Express.js and C++

- **HMI Runtime UI**
    - Implemented the Trend Control module for the HMI Runtime to visualize time series PLC data. Used Qt Scene Graph which reduced the CPU load by 30%.
    - Implemented the Multi Touch Gesture module. Supports gestures such as panning and pinch zoom with upto 5 simultaneous touch points.

Awards

- **Key Player Award**
    - Lead the team and drove sprint deliveries. Contributed to Web Engineering System for Comfort 2nd Gen HMI Panels.
- **Green IOT Hackathon**
    - Semifinalist in the hackathon conducted in Siemens.
- **SPOT Award**
    - Contributed to Trend Control and Multi-Touch Gesture features for Siemens Comfort 2nd Gen HMI panels

Proof of concepts

- **AR Indoor Navigation**
    - Developed an Augmented Reality based indoor navigation system.
    - Used ARCore for the Android app and HTML, CSS, Express.js, Node.js for the indoor layout configuring web app.

- **Smart waste disposable containers**
    - Built a prototype for the GreenIOT Hackathon 2020, that recognizes wastes and helps segregate them.
    - Used Tensorflow to classify disposed objects.
    - MQTT and Flask to communicate with the simulation which was built using PyQt.