

Ratna Emani

Software Engineer • Application Developer • Consultant

3 years of combined work & co-op experience in analysis, design, development, & testing of software applications & products with excellent interpersonal & communications skills.

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EXPERIENCE

CGI, Mississauga, ON — Consultant/IoT Developer

SEPTEMBER 2019 - PRESENT • 1 Year, 4 Months

Role: Consultant

Client: The Source

- Supported as a project lead on a Performance Testing Project for Black Friday.
- Collaborated with various teams and, analyzed, reported & proposed recommended action(s) based on the various testing/tuning cycles performed.
- We used various tools such as BlazeMeter, DynaTrace, Hybris Admin Console, JMeter & Google Analytics, to test & monitor performance improvements.

Role: IoT Developer

Client: Bell

- Conducted design thinking sessions with many stakeholders, to define a solution architecture of a “Connected Retail 360” to bring online shopping experience to in-store, based on Azure IoT Best Practices.
- Built using ESLs, Ultrasonic Sensors & Raspberry Pi 4/IoT Dev Kit to serve as an Edge device that communicates telemetry to the IoT Hub.
- The ultrasonic sensor connected to the Raspberry Pi 4 was controlled using a Python script, with the RPi.GPIO module library. The script calculated the relative distance and triggered an event accordingly.
- The event triggered by the IoT Hub would invoke an Azure Function (Node.js) which communicates with the ESL API to display the correct data (in-store).
- The entire event would be captured, stored (CosmosDB) and used to derive insights using dashboards (PowerBI).
- Reviewed our architecture with Azure Architects to plan & develop a smart retail prototype.
- Responsible for tracking project progress, conflict resolution(s), milestones and budget.
- Pitched the Connected Retail Experience as part of the Bell BU IoT CoE Team.

MC Master of Ceremony, New York, NY — Chief Information Officer

NOVEMBER 2019 - OCTOBER 2020 • 1 Year

- My tasks involved making decisions in the architecture design of the technical stack through R&D, on-boarding & management of the team members, engaging daily with team developers, in a part-time capacity.
- Using Agile methodology the application was developed on AWS, using the micro-services architecture, we used React Native to develop the mobile app, and React for the web application front-end and used Lambda functions (Node.js) for the back-end with both DynamoDB and SQL DBs.

SKILLS

Languages:

JS/HTML5/CSS, Java & Python

IDEs & Editors: Eclipse, VS Code, IDLE, Android Studio, Vim,

Tools & Platforms: JIRA, Confluence, Azure TFS, Azure IoT Suite (Azure CLI, IoT Hub, IoT Edge, Stream Analytics, Azure Functions, Cosmos DB), AWS (AWS CLI, Amazon EC2, AWS Serverless, AWS Lambda, Amazon RDS, DynamoDB, S3), Docker

Other Technologies: Git (CodeCommit, Bitbucket, GitHub, GitLab)

LANGUAGES

English
Telugu
Hindi

CGI, Thornhill, ON — RPA Developer (Co-op)

MAY 2017 - OCTOBER 2017 • 6 Months

- Performed acceptance testing of various RPA applications and tools to identify & assess the tradeoffs.
- Participated in various discussions with RPA Vendors (i.e. Blue Prism, UiPath & WorkFusion).

CIBC, North York, ON — Intermediate Application Developer (Co-op)

MAY 2016 – APRIL 2017 • 1 Year

- Using the BRD and the team lead's guidance, implemented full stack modifications to Rich client application tools (i.e. Client Notebook & Investment Planning) in Java.
- In the final phases of the project life cycle, worked closely with the QC & DTS teams during SIT & UAT cycles.

CIBC, North York, ON — Intermediate Application Developer (Co-op)

MAY 2015 – AUGUST 2015 • 4 Months

- First experience working in an enterprise software development environment. Implemented minor front-end modifications on a legacy application using Java.
- Participated in code reviews , and used HP ALM to track issues during DIT/SIT.

EDUCATION

The Hong Kong University of Science & Technology, Coursera (Online) — Full-Stack Web Development with React Specialization

SEPTEMBER 2020 - PRESENT

This is a four month specialization program that covers Front-End Web Development with React (& Bootstrap 4), Multiplatform Mobile App Development with React Native and Server-side Development with NodeJS, Express & MongoDB

McMaster University, Hamilton, Ontario — Bachelor of Engineering

SEPTEMBER 2013 - APRIL 2019

Completed my bachelors with the Deans' Honour List. Showed excellent understanding in a wide range engineering courses such as Software Design & Software Testing, Computer Networks & Security & Real-Time Systems

PROJECTS

Vulnerability App (VApp) — Capstone Project

- Design a web application to retrieve (with permission) & assess (give a score) the state of the user's privacy settings.
- Front-end on Vue.js & back-end using Node.js & MySQL server.

NSS Canada Website Redevelopment — NGO/Part-Time

- Redesign & redevelopment of a WordPress website with new features such as accepting donations using PayPal (& Visa).
- Custom back-end plugin modifications using PHP & MySQL.
- Custom front-end modifications made using JS, JQuery & CSS.