ABHISHEK1967 (Github)
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# Abhishek Karthik Manikandan

Canada

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## Profile

- Proficient in **full stack web development** consisting of **Angular, Node.js, NoSQL, RDBMS, GCP, AWS, Java**.
- A technology enthusiast and a newbie to **Data science**, **React.js, Vue.js and graphQL**.
- Experienced professional with **4 years** of working knowledge in **Agile SDLC** and **cloud architecture planning**.
- A fast-paced learner with an ability to adapt to any new frameworks and languages.

## Education

**2021-2022** Masters in **Applied Computer Science** - Dalhousie University, Halifax, NS, Canada
**Anticipated**: December 2022

**2013-2017** Bachelors in **Electronics and Communication Engineering** - Agni College of Technology, India
**CGPA**: 8.28/10.0

## Technical Skills

| | |
|---|---|
| **Languages** | Java, Python, C++, JavaScript/Typescript, HTML/CSS |
| **Libraries / Frameworks** | Angular 5+, NodeJS, Bootstrap, React.js, Flask, GraphQL, Keras, Scikit, Pandas, Numpy |
| **Databases** | MySQL, Postgresql, MongoDB, firebase |
| **Systems / Platforms** | Docker, Git, GitLab, GCP, AWS, Heroku |
| **ML Expertise** | Classical ML, Natural language processing, Ensemble techniques, Deep learning, Clustering |

## Work Experience

**Jan 22 – Apr 22** **Teaching Assistant - Intro to Web Design and Development** — **Dalhousie University, Canada**
- Conducted weekly Labs on HTML, CSS and Javascript for a class of 140 undergraduate students and guided students with the best practices in writing clean code with re-usability.

**Jan 21 – June 21** **Software Development Engineer 2** — **Comcast India Engineering Center I LLP, India**
- Built a configurable portal for dynamic data ingestion for Comcast sales agents, iterating directly with Xfinity mobile & marketing teams into various databases, increased the potential performance of the system by 40% with a new architecture of micro frontend and micro services.

**Tech stack**: Angular, Node.js, ELK Stack, Oracle, Neo4j, AppDynamics, Nginx, Swagger docs, Jenkins, Docker

**Sep 20 – Jul 18** **Programmer Analyst** — **Sanmina-SCI Technology Pvt. Ltd., India**
- Built a product to generate slips and necessary pdf documents to automate the shipment notice process in Sanmina-SCI globally.Deployed a machine learning model to forecast and reduce the false positive error reports by 30% in procuring excess inventory and eventually increased the turn over of finished goods.

**Tech stack**: Angular, Node.js, GCP App Engine, PostgreSQL, TypeORM, Gitlab CI/CD, SonarQube, Camunda

**Jul 18 – Jul 17** **Graduate Trainee** — **Sanmina-SCI Technology Pvt. Ltd., India**
- Automated migration of real-time data from Oracle to PostgreSQL using pentaho jobs with a POC.
- Designed and deployed microfrontends and microservices portal to record the qualitative metrics of customer parts in Sanmina-SCI globally and increased the productivity by 75% using angular and node.js.

**Tech stack**: Angular, Node.js, Tomcat Server, PostgreSQL, PM2, Java, TypeORM, Pentaho, Gitlab CI/CD

**Jul 17 – Jan 17** **Intern** — **Sanmina-SCI Technology Pvt. Ltd., India**
- Wrote an end-to-end Node js API service for raising request for laptop as a new employee in the company.
- Automated the process of distributing the joining kit for employees using portal developed in Angular.

**Tech stack**: Angular, Node.js, Tomcat Server, MySQL, PM2, SVN

**Mar 17 – Jan 17** **Research Assistant - Image Processing** — **Agni College of Technology, Anna University , India**
- Added image processing logic for Biometric scanner using compressed sensing.
- Wrote Matlab script based on Compressed sensing image compression for the fingerprints.

## Academic Projects

**Jan 22 – Apr 22** | **Amazon Go clone Cashier-less Checkout** | **Github**

- Built a product to clone the amazon go shopping concept.
- Deployed the angular web application in Heroku and the management module in AWS EBS using ECS.
- Designed the database for the application in DynamoDb and deployed the lambda services to communicate with it.
- Wrote wrapper API in node.js to invoke lambda service without aws api gateway.
- Deployed the whole infrastructure using cloudformation template and confined the AWS services inside a VPC environment.

**Tech stack**: Angular, Node.js, Python, AWS EC2, DynamoDB, VPC, Lambda, CloudFormation, Elastic Bean stalk, Elastic container Registry, Cognito, Gitlab CI/CD, Heroku

**Jan 22 – Apr 22** | **E-commerce Scotia Jewellery Mart** | **Github**

- Responsive e-commerce application to buy and bid on jewellery, built on MEAN stack with Cross Browser compatibility.
- Documented the design in a technical design document using site-mappings and wireframes to help the team with ease of development
- Built the landing page and shopping cart with payment module for the application
- Orchestrated ci/cd pipeline using Gitlab

**Tech stack**: Angular, Node.js, Heroku, MongoDB, mongooseORM, Swagger docs, Gitlab CI/CD

**Sep 21 – Dec 21** | **Custom Relational Database** | **Github**

- Developed a relational database management system using Java for CRUD operations and transactions with key constraints.
- Implemented options like registration, login , SQL command prompt, custom MySQL dump, and ERD export.

**Tech stack**: Core Java

**Sep 21 – Dec 21** | **University Management System** | **Github**

-Developed a java program for managing university students and faculties. The functionalities include Authentication, student and faculty profile management,facility booking and Event bidding.

- Implemented SOLID principles, test-driven development, design patterns, cohesion and coupling, layer boundaries, refactoring techniques. GitLab and Jira were used for project management.

**Tech stack**: Java, MySQL, GitLab CI/CD pipeline, JIRA

## Publications

- **Biometric Scanner using Compressed Sensing** **IRJET 2019**

  Designed an algorithm to capture the necessary image pixels using compressed sensing technique to reduce the storage size of the image and reuse it for verification of the user. Published at the International Research Journal of Engineering and Technology (IRJET) on May 05, 2019.

References Available Upon Request