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GAURAV GARG
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SUMMARY

Motivated computer science graduate with 4 years of industry experience in application development as a full-stack software engineer and cybersecurity expert. Highly skilled in programming for software development projects, especially Linux-based embedded systems.

EDUCATION

Master of Science, Computer Science | Arizona State University | Tempe, Arizona, US | GPA: 4.0/4.0
Bachelor of Technology, Computer Science and Engineering | LNM-IIT | Jaipur, India | GPA: 7.0/10.0

Dec'2022
May'2017

SKILLS

Programming: C++ | Java | Python | C | Shell Scripting | HTML5 | CSS | Typescript | JavaScript

Databases and Servers: MySQL | DB2 | PostgreSQL | Apache | Tomcat

Operating Systems: Windows | Linux (Ubuntu/Centos 7)

Unit Test Framework: GTest | Qt Tests | Jasmine (Angular 10 Unit testing)

Tools and Environments: Qt 5.1 | Qt Designer | QML | Qt Linguist | Angular 10 | AWS Lambda | NodeJS | Web3.js | Solidity | JWT | Flask | Docker | Kubernetes | SELinux | OpenSSL | ZeroMQ | MQTT | DBUS | Latex | DLT logger | Git | Pandas | PM2

PROFESSIONAL EXPERIENCE

Software Developer, Smiths Detection | Bangalore, India

July'20 – July'21

- Developed **C++ Linux-based embedded application** (QtWidget framework) for airport security such as X-Ray machines & narcotics detection devices (**IonScan600**), installed at the airports and defense areas in UK, Russia, Europe and the US (TSA)
- Created **Authentication service** in **Java** that authorizes every user accessing the products in the company's intranet
- Contributed to UI development of **I2D application** using **Angular 10 framework and Typescript** that displays the security-related information for the assets/bags of passengers traveling at Dubai International Airport
- Built the web-based application triggering the alarm activations from **LCD (Light-Weight Chemical Warfare Agent Identifier / Detector)** in case of emergencies for UK fire services department using **Python 3, Flask and Angular 10**
- Implemented the **Remote LCD application** using **C++**, designed explicitly for the Indian Army to detect the chemical weapons from a certain distance by receiving an alarm on a tablet remotely connected with LCD detector and Raspberry Pi
- Winner of **Digithon'21 (hackathon)**, for the idea to predict the loss of passenger items at airport security checkpoints using video analytics (**Object detection** using **Detectron2**), deep learning algorithms and behavioral pattern analysis
- Engineered Features and developed models of explosives detection systems (**XCT**) installed at airports for survival data analysis and predicting the maintenance service requirement of the product, using **Python** and machine learning algorithm **ARIMA**

Associate Software Engineer, Harman International Industries Inc | Pune, India

Aug'17 – Mar'20

- Developed the software for **infotainment systems** which has been installed in over 1 million vehicles in India and Europe
- Implemented code for **Linux-based embedded application** primarily using **C++** and **common-API C++** library framework
- Collaborated in **Human-Machine Interface (HMI)** team for UI development using **QtQuick** framework in multiple modules such as Software Update, Media, Phone Connectivity, System, Vehicle and Audio Setup
- Devised end-to-end Vehicle Data Transfer libraries to send Vehicle **CAN** data over **Bluetooth** and **USB** channels
- Created **Adaptive HMI** service facilitating self-learning of user's preferences providing personalized UI screens
- Implemented **Introspection** service in **HMI** using **Qt** providing details for current screen to automate the unit tests
- Developed **linguistic tool** for language localization and translated text strings to more than 100 different languages

IT Engineer [Intern], ArcelorMittal | Temirtau, Kazakhstan

May'16 – June'16

- Built a **SharePoint portal** for sharing data across multiple networks using **MS SharePoint** and **Windows Server R2**

ACADEMIC PROJECTS

E-Commerce Product Intelligence as a Service

Python, Flask, BERT and SocketIO

May'21 – July'21

<https://github.com/gatjaipur/E-Commerce-Product-Intelligence-as-a-Service>

- Hosted **HTTP Python Flask** Server with a wrapper of **SocketIO** and used **BERT** ML pretrained model to answer the given user query
- Autoscaling using **AWS PaaS service (AWS Lambda)** and asynchronous communication between client and server using **SocketIO**

Covid'19 Vaccine Notification Service

JavaScript, node.js and PM2

May'21 – June'21

<https://github.com/gatjaipur/Covid-Vaccine-Notification-Service-India>

- Implemented **Notification service** using **JavaScript** and **PM2** to find the available vaccination slots based on one's pin code and age
- Improved the process for booking the vaccination slots by sending email notifications to the user using **nodemailer** module in **node.js**

COURSEWORK

Information Assurance & Security | Cloud Computing | Computer Security | Foundation of Algorithms | Data Structures | Distributed Database and Systems | Data Mining | Object-Oriented programming | Genetic Algorithm | Compiler Design | Operating Systems