# Vincente Nguyen Vu

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## **Experience:**

## **Software Developer** – General Motors

March 2021 - Present

- Developed Software Solutions using Java, Akka, and streaming technologies with a plugin architecture.
- Gathered requirements, planned, and designed activities for customers, and provided deployment and postdeployment support.
- Built highly distributed streaming applications catering to extremely large volumes of data.
- Developed enterprise-level web-based, client-server, extremely high throughput with low latency and SAAS applications using Java/J2EE
- Read and modify data using streaming mechanisms from pub/sub systems and cloud resources such as Azure Event Bus, Service Bus, Kubernetes, etc.
- Contributed to the development of streaming products handling large volumes of data using technologies such as Apache Kafka, Apache Pulsar, Amazon S3, MQTT, etc.
- Created containerized microservices-based application for different modules using Docker.
- Performed unit/integration testing and deployed to Kubernetes using Microsoft Azure CI/CD pipelines.
- Engineered cloud-related activities such as creating/modifying Azure resources.
- Contributed to troubleshooting activities during development and deployment phases.
- Managed access and curation of proprietary and protected artifacts.
- Managed and supported jump servers and performed on-call activities during and outside work hours.

## **Accomplishment:**

I achieved a significant accomplishment within the General Motors IT organization by creating an SDK module that uses MQTT to allow Java Applications to interface with the protocol via Akka Streams. This innovative solution was the first of its kind within our organization and was recognized by General Motors Senior Leadership for its ingenuity. Not only did this achievement demonstrate my technical expertise, but it also served as a steppingstone for further application developments towards IoT devices, opening new possibilities for our organization.

### **Projects:**

#### **Fulton schools of Engineering, Computer Science Capstone Project**

- Collaborated with NASA on a team of six to design and develop an educational virtual reality spacecraft museum.
- Co-lead and design frontend objects in C# such as the motions of the virtual reality object.
- Collaborated in designing and programming a toggling feature in the VR controls.

#### **CSE 340: Principles of Programming Languages**

- Designed lexical analysis tool to analyze and interpret token types.
- Implemented parser program to evaluate input against context free grammar for syntax errors.
- Expanded previous two projects to implement Hindley-Milner type checking.

#### **CSE 445: Distributed Software Development**

- Implemented both clients and servers in one system in multithreading. Such systems in distributed web client and server systems.
- Implemented SQL queries in C# for an XML database.
- Designed applications that involve service development, service discovery, and remote binding.
- Designed a web site application (ASPX) that allows entering user's input that takes URL of an XML file as input and displays the element names, text contents, attribute names, and attribute values in a GUI page.

#### **CSE 446: Software Integration and Engineering**

- Developed a .Net application for an in-memory array from the class given data source and then query the data source using LINQ to Objects classes.
- Developed a .Net application to create an XML document from the class given data source and query the XML data source using LINQ to XML classes.
- Developed a BPEL process and WSDL interface using an ASP .Net application.

## **Technical Skills:**

Development Environments: IntelliJ IDEA, Visual Studio, PyCharm, Ubuntu

**Programming Languages:** Java, Linux, Python, C#/ASP.NET, C/C++, SQL, React.js, Scala, JavaScript, SQL **Other:** Kubernetes, Azure Dev-Ops, Docker, Akka, Pipelines, Data Streaming, .NET, Grafana, Prometheus, Distributed System, Cloud Computing, Agile, Gradle, Maven, Apache Kafka, XML, Full-stack Development, Code Optimization, Project Management, Amazon Web Services (AWS), Git/GitHub, Collaboration, Data Structures and Algorithms, Innovation, Software Engineering, Scrum, SOAP/REST, Database, Web Services, RESTful APIs, Microservices

### **Education**:

**Bachelor of Science, Computer Science** 

August 2020

Ira A. Fulton School of Engineering - Arizona State University

• **Student Member**, Engineering Without Borders