

# ADARSH K

📧 <https://www.linkedin.com/in/adarshkarthikeyan/>

📄 <https://github.com/akvish>

@ [aadarshkarthikeyan@gmail.com](mailto:aadarshkarthikeyan@gmail.com)

📞 +91 7012171891

📍 Bangalore, IN

## Senior Software Engineer

*6+ years experienced Software Engineer adept at developing and testing complex systems, with strong interest towards high performing and self learning systems.*

## TECHNICAL SKILLS

Tools & Frameworks	Git, Apache Spark, Spark SQL, AWS S3, AWS Lambda, PyUnit, VS Code, Eclipse, Json, Parquet, Junit, Mockito, CMake, CxxTest, Gcov, Valgrind, Diameter, LDAP, CxxText, TensorFlow, Keras, Docker, Kubernetes, GitLab, typeorm, GraphQL, Jest.
Languages	C++, C, Python, Scala, Java, Octave, PostgreSQL, NestJS.

## PROFESSIONAL EXPERIENCE (LAST 4)

### KeyValue Software Systems

Oct '20 – Present

#### Senior Software Engineer

Bangalore, IN

Technology Stack: NestJS, Postgres SQL, typeorm, GraphQL.

#### Tokko

- Working as a Software developer in Tokko Team. We are working in developing an E-Commerce website for Malaysian market where shops can use the site to list the products and we provide a E-Commerce experience for the shops. Currently we are handling the order and payment. Working on the delivery and track features.

### Siemens

Apr '19 – Oct '20

#### Software Engineer

Bangalore, IN

Technology Stack: Java, Junit, Mockito, NodeJS, NodeRed, Docker, Kubernetes, GitLab, C++.

#### Industrial Edge

- Working as a Software developer in Industrial Edge Team. We are working in developing Edge solutions for industries. Currently handling and mentoring two projects, Simatic Cloud Connector and Simatic Flow Creator.
- Simatic Cloud Connector**  
Developed a cloud connector application which collects data from MQTT server and sends it to cloud. As this application is running in an edge environment, I have done the performance optimization to utilize the resource efficiently. Supports all major cloud providers like AWS, Azure etc.
- Simatic Flow Creator**  
Its Siemens version of open source project NodeRed. We have modified this opensource project according to the customer requirements and security standards. Also modified existing nodes and developed new nodes for the project.

### Nokia Networks

Apr '16 – Apr '19

#### Research and Development Engineer

Bangalore, IN

Technology Stack: C++, CxxText, Ldap, Python, Linux, Git, CMake, Gcov, Valgrind.

#### Shared Data Layer (SDL)

- Working as a Software developer in Shared Data Layer(SDL) team. We are developing a **distributed, in-memory cloud database** for telecom domain to store the customer data. This database is expected to replace the current database in 5G release.

#### Home Subscriber Service (HSS)

- Working as Software developer in HSS Team. We were handling feature implementation, improvements and maintenance of Diameter protocol and HSS. I was working in development of **Unit test framework** for Diameter protocol and parallelly taking up some HSS features.
- Worked in **Diameter Building Block** (Diameter BB) development, in which we were removing all external dependencies of Diameter, by doing so making it as platform independent product. Also, involved in the development of Unit test framework for Diameter BB.

### Accel Frontline Ltd (subsidiary of CAC Holdings Corporation)

Sept '15 – Mar '16

#### Software Engineer, Trainee

Trivandrum, IN

Technology Stack: Java, Apache Spark, Scala, Git, Junit, Eclipse, Spark SQL, AWS S3, Python, PyUnit, LiClipse.

#### Json Handler – Big Data

- Implemented a Spark Cluster in AWS S3 which handle large size of compressed files, which populates every day. Wrote an event driven program which activates when the data arrives in the S3. The program takes large size compressed files as

input and store cleaned data in a distributed file system after performing transformations (Transformations – For cleaning data). User can retrieve data using queries. This resultant structured data is used for analytics.

- **Reduced the total time taken** for processing 350 GB of compressed data (around 1 TB plus uncompressed text files) from around 4 hrs to less than 20 mins by **JVM optimization**.

#### Schema Evolver

- Implemented a Schema evolution engine over existing json validator library in python. Before validating the schema given json file evolves per the new specified schema. Evolution supports various operations like alias, delete...etc.

## CERTIFICATIONS & ACHIEVEMENTS

- **Neural Network Nanodegree** | Udacity.
- **How Google Does Machine Learning** | Coursera, Google.
- Qualified for the first round of **Google Codejam** in 2014, 2016, 2017, 2018, 2019 and 2020.
- **ACM ICPC Regionalist**: Represented my college in ACM ICPC Asia Amritapuri Region 2014.
- **Cofounder of CODEZILLA**, CodeChef chapter, College of Engineering, Trivandrum.
- **Coordinator** for the event “College Quiz” of Drishti 13, National level technical fest, College of Engineering, Trivandrum.

## PROJECTS

#### Dog Breed Classifier | Deep Learning | CNN

- Facilitated critical decision-making by deploying & training **state-of-the-art CNN models** via **backpropagation & chain rule**
- Deployed DL basics like **SoftMax, one-hot encoding, cross entropy, logistic regression & associated error function**

#### TV Script Generator | Deep Learning | RNN

- Implemented a TV script generator using **Recurrent Neural Network(RNN)**, specifically using **LSTMs**.
- The implemented RNN was able to identify words and contexts in which the words used. After training it with the scripts of previous episodes of ‘The Simpsons’ the RNN was able to create script for new episode.

#### Video Steganography | OpenCV

- Able to incorporate secret messages in videos using OpenCV. Introduced the concept called **index frame**, which stores the information about the frames which contain the secret messages.

## EDUCATION

**B. Tech. - Computer Science** | **College of Engineering (CET)**  
**XII - Computer Science - Kerala State** | **Thirumala Devaswom HSS**  
**X - Kerala State** | **Holy Family HSS**

**Trivandrum, IN** | **2010 – 2014**  
**Thuravoor, IN** | **2007 – 2009**  
**Cherthala, IN** | **1997 – 2007**