## Curriculum vitae

## **Asish Biswas**

Email: asish012@gmail.com

Mobile: +49 176 43274219

Stifterweg 38/1 89075 Ulm, Germany

## Overview

I'm a software engineer who loves to tackle challenging problems with creativity and knowledge of new technologies. I'm Experienced with software development in C++ and python for distributed systems, mobile devices, and high-performance systems. I'm also very much passionate about cloud computing and big data.

# **Experience**

# September 2016 - Software Engineer at BMW Car IT

## Continuing Responsibilities:

- Designing and developing "Speech" middleware component for BMW headunit to enable voice control for navigation, entertainment, and other components.
- Writing communication wrapper for "Speech" middleware to communicate with different internal and external components of the head-unit.
- Maintaining BMW test racks (head-unit).
- Test and Release the "Speech" middleware component.

Technologies: Linux, C++14, Boost, Python, SQLite, GCC, CMake, Git

# September 2014 - Software Engineer at Amadeus IT

## August 2016 Responsibilities:

- Developing message switching middleware application to ensure guaranteed message delivery of a distributed system.
- Configuring and deploying the software.

Technologies: Linux, C++, Boost, gcc, SQLite, GCC

## October 2013 - Work Student at Siemens AG

## March 2014 Responsibilities:

- Developed an iPad application along with a sensor network to measure the quality of the working environment.
- Collecting different sensor's data and visualize them in a user-friendly and interactive way.

**Technologies:** Objective-C, Raspberry-Pi, C++, Libelium sensors.

## June 2012 - Research Assistant (HiWi) at Fortiss GmbH

# September 2013 Responsibilities:

- Developing self-balancing "Smart Office" with different sensors and actuators including power storage devices.
- Designing communication protocol in order to connect the sensors into the system.
- Writing wrappers for different sensors and actuators.

Technologies: Java, GWT, MySql

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September 2010 - Software Engineer at Samsung Bangladesh R&D Center Ltd.

February 2012 Responsibilities:

• Developing application on Samsung's mobile development platform.

Technology: C++

Education

September 2014 Master of Science in Informatics

Technische Universität München, München, Germany

**Specialisation:** Software Engineering

October 2009 Bachelor of Science in Computer Science and Engineering

Ahsanullah University of Science and Technology, Dhaka, Bangladesh

**Specialisation:** Software Engineering

**Training and Certification** 

Training by man7.org

Linux / UNIX system programming

training

Amadeus internal Secure Software Development with C++

Course by ACloudGuru **AWS Certified Solution Architect - Associate** 

**Big Data Specialisation MOOC By** 

UC San Diego • 5 Courses including a capstone project

Pluralsight course Applying the Lambda Architecture with Spark, Kafka, and Cassandra

Pluralsight course Building an Enterprise Grade Distributed Online Analytics Platform

Technical Skills

**Dev. Philosophy:** OOP, OOAD, Design patters and principles

Languages: C++, Python, Scala, JavaScript, SQL

C++ Libraries: STL, Boost, Qt

Big Data Tools: Apache Spark, Apache Kafka, HDFS, Cassandra

Data analysis lib: Pandas, Matplotlib, Seaborn

Database: SQL Server, MySql, SQLite, Cassandra

**Cloud Tech.** AWS Certified Solution Architect - Associate (Course Completed)

Build tools: Make, CMake, Maven

Source Control: Git, SVN

Agile & PM tools: Scrum, Confluence

**IDE:** IntelliJ, Eclipse, Qt Creator, Netbeans, Zeppelin, Jupyter Notebook

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# Project Works

MSc Thesis Title: Improving usage control with intra-process data-flow tracking. **Description:** Using runtime binary analysis and data flow analysis, I built a tool which tracks the flow of the data, once a software gets access to important and sensitive user information. The tool also informs the user if a certain sensitive information is used in an unintended way.

**Technologies:** C++, Thrift, Binary analysis tool (Pin), Data flow analysis tool (Libdft)

# **Language Proficiency**

English (Fluent) German (Beginner) Bengali (Native)