

# Curriculum vitae

## Asish Biswas

Email: asish012@gmail.com

Mobile: +49 176 43274219

Jagdfeldring 66

85540 Haar, Germany

---

### Overview

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

---

### Experience

- |                                      |   |
|--------------------------------------|---|
| January 2019 -<br>Continuing         | <b>Data Engineer and Cloud Architect at BMW AG</b><br><b>Responsibilities:</b> <ul style="list-style-type: none"><li>• Design and build a unified data asset for Software Pipeline Analytics project by bringing together scattered structured and unstructured data.</li><li>• Designing, building and maintaining our on-premise big-data cloud environment with Hortonworks Data Platform (HDP).</li><li>• Writing ETL jobs on HDP to handle unstructured data.</li></ul> <b>Technologies:</b> Python, Ansible, Hadoop, Spark, Hive  |
| September<br>2016 -<br>December 2018 | <b>Software Engineer at BMW Car IT</b><br><b>Responsibilities:</b> <ul style="list-style-type: none"><li>• Design and develop "intelligent personal voice assistant" middleware component for BMW head-unit to enable voice control for navigation, entertainment, and other functionalities.</li><li>• Write communication wrapper for middleware modules to enable communication between internal and external components of the head-unit.</li><li>• Maintaining BMW test racks (head-unit).</li><li>• Test and Release the "Speech" middleware component.</li></ul> <b>Technologies:</b> Linux, C++14, Boost, Python, SQLite, GCC, CMake, Git |
| September<br>2014 -<br>August 2016   | <b>Software Engineer at Amadeus IT</b><br><b>Responsibilities:</b> <ul style="list-style-type: none"><li>• Develop message switching middleware application to ensure guaranteed message delivery of a distributed system.</li><li>• Build, release and maintain the messaging service on Amadeus datacenter.</li></ul>   |

# Curriculum vitae

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

October 2013 -  
March 2014

**Work Student at Siemens AG**

**Responsibilities:**

- Developed an iPad application along with a sensor network to measure the quality of the working environment.

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

June 2012 -  
September  
2013

**Research Assistant (HiWi) at Fortiss GmbH**

**Responsibilities:**

- Developing self-balancing “Smart Office” with different sensors and actuators including power storage devices.

**Technologies:** Linux, Java, GWT, MySql

September  
2010 -  
February 2012

**Software Engineer at Samsung Bangladesh R&D Center Ltd.**

**Responsibilities:**

- Developing application on Samsung’s mobile development platform.

**Technology:** NXP, C

## Education

---

September  
2014

**Master of Science in Informatics**

Technische Universität München, München, Germany

**Specialization:** Software Engineering

October 2009

**Bachelor of Science in Computer Science and Engineering**

Ahsanullah University of Science and Technology, Dhaka, Bangladesh

**Specialization:** Software Engineering

## Technical Skills

---

**Dev. Style:** OOP, OOAD, Design patterns and principles, CI-CD

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

**C++ Libraries:** C++14, Boost, Qt

**Database:** SQL Server, MySql, SQLite, Cassandra, DynamoDB, MongoDB

**Big Data Tools:** Apache Spark, Kafka, Ansible

**Cloud Tech.** AWS, OpenStack

**Data analysis:** Numpy, Pandas, Matplotlib, Seaborn

**Build tools:** Make, CMake, Maven

**Source Control:** Git, SVN

**PM tools:** Scrum, Confluence

# Curriculum vitae

## Training and Certification

---

- **Linux / UNIX system programming**  
man7.org
- **Secure Software Development with C++**  
Amadeus Training
- **AWS Certified Big Data – Specialty**  
Course by Linux Academy
- **Advanced python training**  
Python academy
- **Machine Learning Specialization** (4 Courses including several projects)  
Coursera - University of Washington

## 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)