

Curriculum vitae

Asish Biswas

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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 machine learning.

Experience

January 2019 - **Data Engineer at BMW AG**

Continuing

Responsibilities:

- Building a data asset environment for Software Pipeline Analytics project by bringing together scattered structured and unstructured data.
- Designing, building and maintaining our on-premise big-data cloud environment with Hortonworks Data Platform (HDP).
- Writing ETL jobs on HDP to handle unstructured data.

Technologies: Python, Apache Hadoop, Spark, Hive, Ansible

September 2016 - **Software Engineer at BMW Car IT**

December 2018

Responsibilities:

- Designing and developing "intelligent personal voice assistant" middleware component for BMW head-unit to enable voice control for navigation, entertainment, and other functionalities.
- Writing communication wrapper for several middleware modules to enable communication between 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.

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- 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
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

- By: man7.org **Linux / UNIX system programming**
- Amadeus internal **Secure Software Development with C++**
- Python Academy **Advanced python training**
- MOOC By University of Washington **Machine Learning Specialisation**
 - 4 Courses including several projects

Technical Skills

- Dev. Philosophy:** OOP, OOAD, Design patterns 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)