

Asish Biswas

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Overview

I'm an engineer with Master of Science (MSc) focused in Informatic from Technische Universität München (TUM). I love to tackle challenges with knowledge and creativity. I'm experienced with secure software development with C++ and python for distributed systems, mobile devices, and embedded devices. I'm also passionate about cybersecurity and cloud technologies. My goal is to learn and grow as a better person and as a better professional, every day.

Experience

January 2019 -
Continuing

Data Engineer and Cloud Architect at BMW AG

Responsibilities:

- Drive the initiative to build a unified data asset for Software Pipeline Analytics project by bringing together scattered structured and unstructured data.
- Design, build and maintain our on-premise big-data cloud environment with Hortonworks Data Platform (HDP).
- Write ETL jobs on HDP to handle unstructured data.

Technologies: Python, Ansible, Hadoop, Spark

September
2016 -
December 2018

Software Engineer at BMW Car IT

Responsibilities:

- Design and develop "intelligent personal voice assistant" middleware component for BMW head-unit to enable voice control for navigation, entertainment, and other functionalities.
- Write wrappers for different middleware modules to enable secure communication between internal and external components of the head-unit.
- Test and Release the "Speech" middleware component.

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

September
2014 -
August 2016

Software Engineer at Amadeus IT

Responsibilities:

- Develop message switching middleware application to ensure guaranteed message delivery of a distributed system.
- Build, release and maintain the messaging service on Amadeus datacenter.

Curriculum vitae

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|--------------------------------------|--|
| | Technologies: Linux, C++, Boost, gcc, SQLite, GCC |
| October 2013 - March 2014 | Work Student at Siemens AG Responsibilities: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• 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: <ul style="list-style-type: none">• Develop application on Samsung’s mobile development platform. Technology: NXP, C |

Education

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|-------------------|---|
| 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

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|------------------------|---|
| 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 Tech: | Apache Spark, Kafka, Numpy, Pandas, Matplotlib, Seaborn |
| Cloud Tech: | AWS, OpenStack |
| Build tools: | Make, CMake, Maven |
| Source Control: | Git, SVN |
| PM tools: | Scrum, Confluence, MS Threat Modeling Tool |

Training and Certification

- **CSSLP – Certified Secure Software Lifecycle Professional**
Course from Pluralsight. Certification exam due.
- **CompTIA Security+ (SY0-501)**
Course from Linux Academy
- **Linux / UNIX system programming**
Training from man7.org
- **Secure Software Development with C++**
Amadeus Training
- **AWS Certified Solution Architect – Associate**
Course from Linux Academy
- **AWS Certified Security – Specialty**
Course from Linux Academy

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)