

# Saahil Ognawala

## Curriculum Vitaé

Rudi-Seibold-Str. 39a  
80689 Munich, Germany  
☎ +49(176) 349 93325  
✉ saahil.in@gmail.com  
📄 saahil.github.io



### Profile Highlights

- **Effective product owner:** Lead development of highly scalable and modern software solutions (proprietary and open-source) in sphere of data analytics, knowledge mining, APIs, security scanners and many others.
- **Experienced software engineer:** Demonstrable programming skills in Python, C++, and C through over 10 years of combined academic and industrial experience.
- **Presentation and communication skills:** Presented several personal and organizational work to international community of researchers, practitioners and clients. Efficiently handled interactions with cross-domain teams of academic and business partners.
- **Team-play and leadership:** Proven skills in motivating and driving successful teams of engineers, designer and researchers, young and experienced, alike.

### Education

- 2015–2019 **Doctor of Philosophy (Ph.D.)**, *Technical University of Munich, Germany, Dissertation title:* Scalable Greybox Fuzzing for Effective Vulnerability Management.  
*Specialization:* Software engineering, security testing, machine learning
- 2012–2014 **Master of Science (M.Sc.)**, *Technical University of Munich, Germany, Thesis title:* Regularizing Recurrent Neural Networks.  
*Specialization:* Deep learning, software engineering
- 2007–2011 **Bachelor of Engineering (B.E.)**, *Manipal Institute of Technology, India, Thesis title:* Active Data-in-motion Security in Enterprise Networks.

### Experience

- 2019–Current *Consultant in Data Science and Engineering, Munich Re, Munich, Germany*
- Development of an entity resolution service for enriching company's core systems' data intake with several internal master data sets.
  - Driving an increase in productive user-base of augmented data management services in the first year by 500%, supporting a portfolio of 40M€ in bottomline.
  - Technical lead for the first corporate knowledge graph in Munich Re, for AI-driven augmented data management.

- 2015–2019 *Research Staff, **Technical University of Munich***, Munich, Germany
  - Adaptive hybrid combination of blackbox fuzzing and concolic execution to find low-level program vulnerabilities
  - Developed 3 open-source vulnerability scanning and assessment programs (most-downloaded amongst all programs in Chair for Software and Systems Engineering)
  - Published 6 academic papers and presentations in peer-reviewed journals(over 100 citations on Google Scholar)
  
- 2018–2018 *Summer Intern, **Imperial College London***, London, United Kingdom
  - Tight integration between AFL fuzzer and KLEE concolic execution engine
  
- 2012–2014 *Scientific Assistant, **Technical University of Munich***, Munich, Germany
  - Classification of surface texture for robot handling using deep-learning
  - NLP-based analysis of user stories to gain insight into wrong estimations, for agile development companies
  
- 2011–2012 *System Software Engineer, **Hewlett-Packard Corp.***, Bangalore, India
  - Development of the backbone architecture for SOAP based web services framework on HP's proprietary NonStop OS. Responsible for implementing WS-Security
  
- 2011–2011 *Bachelor Thesis Intern, **RSA - The security division of EMC***, Bangalore, India
  - QA for Data Loss Prevention (DLP) and integration of two RSA products, viz. DLP and Archer (e-Governance, Risk Control Suite)
  
- 2010–2010 *Summer Intern, **Jawaharlal Nehru University***, New Delhi, India
  - Implementing and evaluating basic techniques of web recommender systems over MovieLens database
  
- 2019–Current *Summer Intern, **Otto von Guericke Universität***, Magdeburg, Germany
  - Modelling software failure modes and effects analysis (SFMEA) through a web tool

## Teaching Experience

- **Advanced Concepts in Software Engineering** Master's level lecture course, Winter semester 2017/18
- **Modelling of Distributed Systems** Master's level lecture course, Summer semesters 2016, '17, '18
- **Fuzz Testing for Vulnerability Detection** Master's level seminar, Winter semester 2016/17
- **Introduction to Programming and Systems Engineering** Master's level lecture course, Winter semester 2016/17
- **Secure coding** Master's level practical course, Winter semester 2015/16
- **Introduction to Software Engineering**, Bachelor's level lecture course, Summer semester 2015

## Key skills

Programming languages Python, C++, C, Java

Frameworks Flask, Django, Pytorch, Tensorflow, Scikit-learn, XGBoost

Cloud technologies Docker, Kubernetes, Ingress, GCloud, Microsoft Azure

Databases Cosmos DB, MongoDB, MySQL, Elastic stack

## Languages

English **Second native level**

Hindi **Mother tongue**

German **B2**

## Interests

Kickboxing, bouldering, literature, writing, hip-hop, and rock-n-roll music.

## Reference

**To be provided upon request**