Curriculum vitae

PERSONAL INFORMATION Abhik Ghosh

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PERSONAL STATEMENT

Experienced software engineer with a demonstrated history of working in the industry. Skills: Python developer, Machine learning, Cloud services, Web development, Internet of things.

WORK EXPERIENCE

06/2018–Present Research Associate/Software developer
RWTH Aachen University, Aachen (Germany)

- Involved in National 5G Energy Platform project
- Agile (Scrum) project management
- Research in ICT, Internet of things (IoT) and IoT platform (Python, Javascript, C, C++)
- System admin: Linux and windows
- Cloud computing: AWS services (EC2, S3, lamda, Route 53, Dynamo DB) , Cloud, Web services , Openstack, Fiware
- Web development: Django, Flask, Django Rest Framework, Java scripts, HTML, PHP
- DevOps: CI/CD, Bash, Dokku server, Docker container, Kubernetes, Ansible, GitLab and GitHub
- Machine learning: Python, Tensorflow, Keras, NumPy, Pandas, data analysis
- Databases: SQL, Postgres, no SQL, influxdB, mangodB, CrateDB
- Internet Of Things: ReactJs, NodeJS, HTTP, MQTT, Web services, REST API
- Identity access management: Keycloak and AWS IAM

11/2016–06/2017 Student research assistant
Fraunhofer IFF, Magdeburg (Germany)

- Automation and control strategies for energy sytem
- Energy management system: Development and simulation of smart houses system in Modelica (SimulationX)

09/2010–08/2014 Energy engineer (System engineer)
JSW Energy, Ratnagiri (India)

- Distributed Control System (DCS) Operation in Boiler base, Turbine base and CCS mode (1200 MW)
- SCADA operation/commissioning of gas insulated substation (GIS) and switchgear system (400 kV)
- Client -server interfaces, Communication protocols: Bacnet TCP/IP, Modbus RTU, IEC 60870, Ethernet, TCP/IP
- SCADA-Trend, Data quality und Alarm analysis

EDUCATION AND TRAINING

10/2014–06/2017	**Master of Science in Electrical Engineering and Information Technology**

Otto-von-Guericke-University, Magdeburg (Germany)

- Specialization in Energy and Automation & Control subjects
- Energy optimization, power economics, demand response, smart grid, battery energy storage system
- Master thesis : Development of an Energy Management System for demand response program within smart DC houses
- Project : Demand response for heating and cooling purpose in smart house
- Grade 1.9

05/2009–05/2010	**Post Graduate Diploma in Power Plant Engineering**

JSW Energy Center of Excellence, Visveswaraiah Technological University, Bangalore (India)

- Specialization in Power system and Thermodynamics (Mass & heat transfer) subjects

05/2005–05/2009	**Bachelor of Engineering in Electrical and Electronics Engineering**

Visveswaraiah Technological University, Belgaum (India)

- Specialization in power system and automation
- Project: Design & development of simulator for fuel injection calibrating parameters
- 76% - "First Class with Distinction

PERSONAL SKILLS

Mother tongue(s)   Bengali, Hindi

Foreign language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
B1	B1	B1	B1	B1

English — C1, C1, C1, C1, C1
German — B1, B1, B1, B1, B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Job-related skills

- Programming Languages : Java, C, C++, Modelica, MATLAB, Python, UML, HTML, XML, Javascript
- Python developer: NumPy, Pandas, matplotlib, scikit-learn, OpenCV.
- Database: SQL, no SQL, PostgreSQL, influxdb
- DevOps: CI/CD, Bash, Docker, GitLab, GitHub, Jenkin, Ansible.
- Machine learning: TensorFlow, Keras, Data wrangling
- Cloud computing: Azure, Openstack, AWS, Docker, Kubernetes, Angular JS, Node JS
- Internet of things and web services: REST API, MQTT, HTTP, JSON, TCP/IP
- Image recognition and pattern recognition in time series data
- Modelling of LSTM-RNN, CNN, SVM, KNN, PCA, ICA and predictive algorithms
- Building automation and monitoring: OPC UA, SCADA, IEC 60870, Modbus, BACnet and DCS