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# Aditya Raj

Java Software Developer



Aditya joined Accenture in 2018 and is currently working as a Java Software Developer in Berlin while he himself has good experience working with object oriented programming specially in JAVA. His recent project with Salzgitter Flachstahl, Germany involved developing a novel solution towards defect analyis and classification in long steel coils using JAVA. His background also shows undersatanding of SQL in general. His primary focus has always been to come with an innovative but easily integrable solutions to the given problems.

Before joining Accenture, Aditya studied as a M.sc. Informatik student at TU Clausthal, ClausthalZellerfeld, Germany. Apart from achieving exceptional grades for his Masters in Informatik (Grade obtained: 1.2 out of 5 where 1 being the highest), he also kept himself busy by working on several student projects (as a research assitant) at the University in diverse areas such as Wireless Sensor Networks, Java based Simulations, Deep Learning and so on.

### Selected Projects

### Damage detection in steel bars using high dimensionality outliers detection

Developed and implemented: 'Voting Outliers Using Randomised Sampling' (VOTERS) algorithm for analyzing and classifying defect patterns in long steel coils.using statistical and machine learning techniques in JAVA. This involved efficiency, robust but generic software design with existing JAVA based framework and small execution time. End product was a detailed report, stating the algorithm design principles, and results on known dataset. End classification results were overwhelmingly appreciated by the Salzgitter technical experts.

# Cooperative locality-aware data processing in heterogeneous Wireless Sensor Networks

Aim was to find and implement a novel solution for efficient data transfer among locally aware but heterogeneous sensor nodes. The focus was on increasing energy budget of the sensor network by pulling away the load of large amount of data processing locally and instead shifting the workload to aggregator processing center with higher compute power and energy budget. End result was quite good and was further published as a paper in 'Fachgespräch Fog Computing'

#### Agent-based simulation of autonomous cars

This project involved developing models for autonomous driving cars in an existing JAVA based agent simulation known as AgentDrive and OpenDriving Simulator. This was in collaboration with Czech Technical University and TU Clausthal. End results gave helpful insights into designing automated driving system.

#### Website development

Responsible for developing website <a href="www.icln.de">www.icln.de</a> from scratch which allows registered members from different universities to participate in a team based role play for TOPSIM business simulation game. Other features include user profile management, viewing member details, role based file uploads, SQL queries and video playlists

### Education

- 2018 Master's Degree in Internet Technologies and Information Systems, TU Clausthal, germany
- 2015 Bachelor Degree in Information Technology, VIT University, India

#### Technical skills

- Programming Languages: JAVA, C++, R, Python
- · Database (SQL)
- WEB-Programming: HTML5, CSS, XSLT, XSD, Bootstrap, PHP
- Software Packages: Scilab, V-REP, Blenders, Latex, Cooja, OpenDS, TensorFlow, TinyOS
- Build environments: Git, CircleCl, Maven, Gradle