(+49)15778002570 **ANUPMA RAJ** anupmaraj@gmail.com

WORK EXPERIENCE

Master's Thesis **SAP & Technical University of Darmstadt** **Jan 2016 ~ July 2016**

Extending Web Analytics with prediction models to detect anomalies in distributed web applications; PaaS Layer of Cloud

- Examination of existing predictive analytics algorithms and techniques.
- Identification and implementation of those which can be applied to predict future trends in the web analytics context.
- Comparing resulting predictions with actual data to identify anomalous situations and trigger consequent alerts.

Student Cloud Platform Developer **SAP** **July 2015 – Jan 2016**

SAP Web Analytics; Java; PaaS Layer of Cloud

- Implementing and testing Data Reports for analyzing data collected through SAP Web Analytics.

Software Engineer, Intern **Axel Springer** **Sep 2014 – Mar 2015**

Designing and Implementing an Auto-Scaler for Cloud Foundry; Go; PaaS Layer of Cloud

- Wrote an Application level Auto-Scaler for CloudFoundry's Pivotal to automate the manual scaling process.
- Implemented threshold limits for 'Requests per second' metric.
- Accounted for inertia periods and instance startup and shutdown waiting periods.
- Completed the full project single-handedly in three months.

Bachelor's Thesis **National Institute of Technology, Karnataka** **Aug 2012 – Apr 2013**

Modified DCTCP Algorithm for Data Center Congestion Notification; C; IaaS layer of Cloud

- Implemented an improved Data Center Transmission Control Protocol algorithm with two modifications in C entitled iDCTCP: implementing the Mark from Head Strategy, and eDCTCP: implementing the Binary Increase Strategy.
- iDCTCP and eDCTCP provide significant improvement over the performance of the current DCTCP by improving throughput for elephant traffic and decreasing latency for mice traffic.
- Solves the problems of incast, queue build-up and buffer pressure at the switch in data centers.

Computer Engineering Intern **Indian Institute of Management, Ahmedabad** **Jun 2011 – Aug 2011**

Customer Churn in the Telecommunication Industry through Data Mining

- Identified features that influence customer churn through literature surveys.
- Designed a questionnaire to collect feature - relevant data from over 300 respondents.
- Analyzed it to define relationships between influential factors using SPSS Statistics and determine churn pivots.

EDUCATION

Darmstadt, Germany **Technical University of Darmstadt** **August 2013 - Present**

M.S.E. in Distributed Software Systems

- Graduate Coursework: Distributed Systems, Resilient Networks, Network Security, Middleware, Event Processing, Communication Networks, Software Engineering

Karnataka, India **National Institute of Technology Karnataka** **July 2008 - July 2012**

B.Tech. in Computer Science Engineering

- Undergraduate Coursework: Distributed Computing Networks, Cloud Computing, Advanced Comp. Networks, Data Structures and Algorithms, Operating Systems, Information Security, Artificial Intelligence, Software Engineering, System Programming

Geneva, Switzerland **International School of Geneva** **July 2005 - May 2008**

- International Baccalaureate Diploma in Math, Physics, Chemistry, Biology, English, French

ADDITIONAL INFORMATION

Programming Languages

- Go; C; C++; Java; SQL; HTML;

Publications

- iDCTCP: Improved DCTCP with Mark from Head Strategy for Data Center Networks [2013]

Certifications

- TOEFL, Jan 2013: Total- 117/120. Reading- 30/30. Writing- 27/30. Listening- 30/30. Speaking- 30/30.
- GRE, Nov 2012: Total- 324/340. Quantitative Reasoning- 165/170. Verbal Reasoning- 159/170.

Languages

- English (Mother Tongue); Hindi (Mother Tongue); German (B1 Certificate); French (intermediate)