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ANUPMA RAJ

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WORK EXPERIENCE

Student Cloud Platform Developer **SAP** **July 2015 - Present**

SAP Web Analytics; Java; PaaS Layer of Cloud

- Implementing and testing Data Reports for analyzing data collected through SWA.

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

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

- Wrote a Threshold- based Instance Auto-Scaler for CloudFoundry's Pivotal to automate the manual scaling process. It implements threshold limits for 'Requests per second' metric and accounts for inertia periods and instance startup and shutdown waiting periods.

Thesis Student **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.
- Completed the full project single-handedly in three months.

Software Engineer, Intern **National Taiwan University** **May 2010 – Jul 2010**

Turbo Coding and Viterbi Coding; C++

- Researched Turbo Coding, Viterbi Coding and Encryption Analysis and thereafter implemented three different inter-leavers. Tested the performance of all three to determine the most efficient inter-leaver for Turbo Encryption.

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)