Ruchi Saha

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EDUCATION	**Dual Degree (Btech + Mtech) Computer Engineering** CGPA: 8.89/10 (2015-2020)

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Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram
Class XII Percentage: 91.8, Kendriya Vidyalaya AFS Uttarlai   (2014)
Class X CGPA: 10/10, Kendriya Vidyalaya AFS Uttarlai   (2012)

RESEARCH EXPERIENCE

Resource-Efficient and High-Throughput FPGA-based Multi-match Packet Classification Architecture for NIDS (Final Year Project)   IIITDM Kancheepuram (Nov'19-July'20)
Work submitted to the journal of Computer Systems Science and Engineering (awaiting review) (A short summary of work here). Supervised by Dr Noor Mahammad SK, supported by Ministry of Electronics and Information Technology, Govt. of India

Network Processor (Research Intern)   IIITDM Kancheepuram (July-Oct'19)
Designed an assembly language, assembler, simulator plus emulator and a firmware for a customized Hardware (github link). Supervised by Dr Noor Mahammad SK

Privacy Preserving Public Auditing with Data Deduplication for Secure Data Storage in Fog to Cloud based IoT (Cryptography Research Intern)   IDRBT, Hyderabad (May-Sep'19)
Researched on Data Integrity and Deduplication in fog to cloud based IoTs (link), Supervised by Dr P Syam Kumar

Network System (Research Intern)   IIITDM Kancheepuram (May-July'17)
Optimized hardware for IPV4 packet forwarding engine, Supervised by Dr Noor Mahammad SK

TEACHING EXPERIENCE

Teaching Assistant   IIITDM Kancheepuram (July'19-July'20)
Courses Assisted: Digital and Analog Design, Design and Analysis of Algorithms. Assisted students in labs. Assisted professors in creating and evaluating assignments, projects and tests.

INDUSTRIAL EXPERIENCE

Engineer, Backend Server   Samsung Research Institute, Delhi (Jan'21-Present)
Worked in the domain of Cloud and Database Management. Designed and deployed programs in multiprocessing environment.

Network Analyst (Intern)   GAVS Technologies, Chennai (May-July'18)
Worked in the field of automation and networking. Worked with Information Management Systems. Studied and customised open source network monitoring softwares.

SELECTED PROJECTS

Network Management System   IIITDM Kancheepuram, (Aug-Nov'19
Designed a Software to help monitor health of the network for college Network Infra Department.

32-bit Pipelined Processor (Without control circuits)   IIITDM Kancheepuram, (Feb-July'17
Made a 32-bit pipelined processor in verilog HDL and analysed area power and delay of so (link).

ACHIEVEMENTS

Ford CSAM IoT Security Paper Presentation (link), Won Best Paper Award   (2019)
GATE (Graduate Aptitude Test in Engineering), All India Rank 1855   (2019)
International Maths Olympiad, School Rank 2nd   (2010)
International Maths Olympiad, School Rank 4th   (2009)

EXTRA-CURRICULAR

Technical Affairs Coordinator, IIITDM Kancheepuram   (2016- 2017)
Volunteer (organizing team)-World Space Week, ISRO-SHAR   (4-10 Oct 2016)
School Captain, Kendriya Vidyalaya AFS Uttarlai   (2013 - 2014)
School Vice Captain, Kendriya Vidyalaya AFS Uttarlai   (2012-2013)

COMPETENCES AND HOBBIES

Skills and Tools C/C++, Scala, Python, Postgres, git, Verilog, Xilinx ISE, LaTeX
Hobbies Painting, Reading Comics
Languages Hindi (*native*), English