Suyash Mahar

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Education

Indian Institute of Technology, Roorkee

Roorkee, India

suyashmahar.me

B. Tech., Electronics and Communication Engineering (CGPA: 9.149/10) July 2016 - Present

 Coursework includes: Computer Architecture, Digital Logic Design, Data Structures & Algorithms and Semiconductor Devices

Experience

Design of efficient FIB table for NDN routers

IIT Roorkee, India

Undergraduate Research Project

July 2017 - present

- Working under Prof. Vaskar Raychoudhury and Divya Saxena on ways to accelerate FIB look ups in NDN routers using re-configurable hardware
- Work includes search and FPGA implementation of data structure for longest prefix matching

FPGA implementation of CORDIC algorithms

IIT Roorkee, India

Short term project

May 2017 - June 2017

- Studied and implemented CORDIC algorithms on FPGA under Prof. Bishnu Prasad Das
- Used Python (Jupyter notebook) for modeling and Verilog for design and implementation

Single cycle 32-bit RISC processor

Hobby project

June 2017

 Created a simple implementation of 32-bit MIT 6.004 architecture with improvements and additions

Awards and Achievements

• Dedicated member award, National Service Scheme (IIT Roorkee)

April 2017

• Joint Entrance Examination, Advanced (Indian Institute of Technology)

All India Rank 1387, 99.3 percentile

 $May\ 2016$

• International Cyber Olympiad (SilverZone)

Dec. 2014

Olympiad Rank 11, State Rank 1

Skills

Languages: (System) Verilog, C++, SPICE, LATEX, Python, C#/VB.NET, Java, Shell

Software: Vivado, MatLab, Visual Studio 2017, Android Studio

Languages: English, Hindi

Interests

Academic: Computer Architecture, Re-Configurable Computing, Embedded systems

Computers: Currently maintaining two applications on GitHub (Android and Windows)

Campus Groups: Active member of IEEE Special Interest Group and Mobile Development Group