



Ashutosh Kumar Verma
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Indian Institute of Technology Bombay
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UG Third Year (B.Tech.)
DOB: 15/06/1999
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Examination	University	Institute	Year	CGPA/%
Graduation	IIT Bombay	IIT Bombay	2018	7.83

INTERNSHIPS

Member of Technical Staff Intern [May-July'19]
Rubrik India Pvt. Ltd.

- Created a command-line interface for doing operations with Rubrik's managed volumes
- Created a FUSE filesystem which stripes data to different channels and does parallel reads, writes and syncs. Achieved over 80% improvement in write throughput over native ext4 filesystem

Automatic Repair of SonarQube Bugs in Java Projects [May-July'18]
Guide: Prof. Martin Monperrus *KTH Royal Institute of Technology, Sweden*

- Used INRIA's Spoon library to create a system to automatically repair SonarQube bugs in java code
- The System repaired 102 Sonar violations and merged 6 pull requests in Spoon's master branch
- Contributed to development of Sniper Mode of Spoon for clean source-to-source transformation

ACADEMIC ACHIEVEMENTS AND SCHOLARSHIPS

- Secured **All India Rank 14** in **KVPY SA** Stream out of 60,000 candidates [2014]
- Awarded the **National Talent Search Examination (NTSE)** scholarship by National Council of Educational Research and Training (NCERT), Government of India [2014]
- Secured **All India Rank 221** in **JEE Advanced 2016** among 200,000 candidates [2016]

TEACHING EXPERIENCE

Teaching Assistant: Data Structures & Algorithms Lab [Autumn'18]
TA for Prof. R.K. Shyamasundar *IIT Bombay*

- Responsible for setting lab problems, evaluation and helping students with doubts in the lab

TECHNICAL PROJECTS

Notes sharing Android application [September-November'18]
Course Project | Guide: Prof. S. Sudarshan *IIT Bombay*

- Creating a file sharing app on PostgreSQL based on backend with JDBC API

Courspace [September-October'17]
Course Project | Guide: Prof. Kavi Arya *IIT Bombay*

- Developed a Web app using Django backend for interaction between students and instructors

Railway Controller using VHDL [January-April'18]
Course Project | Guide: Prof. Supratik Chakraborty *IIT Bombay*

- Designed and implemented a railway signaling controller on FPGA board using VHDL and C

Compiler for C-like Language [January-April'19]
Course Project | Guide: Prof. Uday Khedkar *IIT Bombay*

- Developed a compiler for a C-like language. Used Lex and Yacc for tokenising and parsing, to create Abstract Syntax Trees, symbol tables and later translate to MIPS assembly code
- Supported functionalities like function calls, if-else statements, loops and arithmetic expressions

TECHNICAL SKILLS

Programming: **Proficient** : C/C++, Java, Python
Moderate : SQL, Bash, Scheme, Assembly

Softwares : Linux, Spoon, Matlab, L^AT_EX, Git, AutoCAD, Gnuplot