Anuj Mittal

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Profile

I am Anuj Mittal, a final year undergraduate student at Indian Institute of Technology, Bombay. Secured All India Rank 8 in IIT JEE-Advanced out of 150 thousand candidates. Studied a variety of current research problems in the field of computational geometry and geometric optimization for online algorithms like triangulation, navigation and packing

Scholastic Achievements

- Institute Rank 1 among all final year students at IIT Bombay
- Secured All India Rank 31 in IIT JEE Advanced 2014 out of 150 thousand candidates across India
- Secured All India Rank 55 in JEE Main 2014 out of 1.4 million candidates in India
    Technical Skills Programming Languages C/C++(Proficient), C#, Scala, Python, Java, Bash, SQL, VHDL, SPIM Softwares and Tools Unity3D, MATLAB, AutoCAD, Wireshark, Git, Gnuplot, LATEX

Project

- Working on a new cost-based algorithm to improve the time of calculating optimal order for joins in database queries involving joins on a large number of relations
- Designed a compiler for a subset of C language for generating MIPS code using flexc++ and bisonc++ implementing intermediate code optimization using dead code elimination with live variable analysis
- Conceptualized and built an IIT Bombay exclusive version of Reddit implementing various ranking algorithms for news feed and thumbnail generation using Open Graph Protocol
- Created a VHDL Module to produce interpolated image from the incoming streaming pixels designing an optimized controller module to achieve minimum possible delay and storage space requirement
- Implemented a simulation of eight ball pool game with basic aspects like friction, collisions, foul detection and pocket detection in Box2D, a physics simulation engine in C++
- Created a client-server system that allows multiple users to connect and utilizes multiple worker nodes for cracking the password using socket programming in C++