

Manik Gupta

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Education

- 2019–present **M Tech in Computer Science and Information Security, IIIT Hyderabad, CGPA- 8.28/10.**
- 2015–2019 **B Tech in Computer Science and Engineering, Maharaja Agrasen Institute of Technology, Delhi, CGPA- 8.3/10.**
- 2014 **Senior Secondary, Shiksha Niketan Senior Secondary School, Jammu, 92.2%.**
- 2012 **Secondary, Shiksha Niketan High School, Jammu, 87.6%.**

Experience

- June-July '20 **Software Engineer Intern, Visa Inc..**
Developed an android application that provides full-fledged shopping experience to Visa cardholders. Technologies used: React native for frontend, Django for backend, integrated with Visa APIs

Projects

Distributed Hash Table: Pastry Algorithm

Implemented Pastry, a scalable, distributed object location and routing substrate for wide-area peer-to-peer applications which performs application-level routing and object location in a potentially very large overlay network of nodes connected via internet. It automatically adapts to the arrival, departure and failure of node.

Mini SQL Engine

Implemented a mini SQL engine that can parse and execute basic queries, joins and aggregate functions with appropriate error handling

Peer-to-Peer File Sharing

Built a bit torrent like file sharing system with multi-tracker system with synchronization and parallel downloading

Van Emde Boas Tree Implementation

C++ implementation of Van Emde Boas Tree that supports insertion, deletion, search and predecessor/successor operations in $O(\log(\log u))$ time and used this to improve the running time complexity of Kruskal's algorithm

Technical Skills

- Languages C++, C, PYTHON, BASH
- OS LINUX, WINDOWS
- DBMS MYSQL

Achievements

Visa Global Intern Hackathon

Won under the "Best use of Visa API" category for developing an application for Visa cardholders integrating Visa APIs