Pulkit Piyush

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EDUCATION

Georgia Institute of Technology
Masters in Computer Science

Atlanta, GA
Aug 2018 - Present

Indian Institute of Technology, Bombay
Bachelors in Computer Science and Engineering; CGPA 8.53/10

Mumbai, India
Jun 2010 - May 2014

EXPERIENCE

Goldman Sachs
Associate · Securities Division

Bangalore, India
Jan 2018 - July 2018

- **Full Stack Development** `Java React JavaScript MongoDb` : Full stack mongodb Development... write more about this
- **Benchmarking chips and stuff** `Java C++` : Reducing latency, implemented protocols, etc etc

Goldman Sachs
Analyst · Securities Division

Bangalore, India
May 2016 - Dec 2017

- **Capacity Enhancements** `C++` : Software developer and maintainer for Algorithmic Trading Platform, written as an API over proprietary language, implemented internally in C++. Fixed memory leaks in the system using valgrind/massif and reduced the memory consumptionby 25%. Reduced the number of external market data events entering into the platform, by only sending the latest Quote price alongside with every Trade event, thus increasing the capacity of each engine by 50%
- **Logging Enhancements** `C++` : Moved logging from proprietary language to C++, making logging an order of magnitude faster

Goldman Sachs
Technology Analyst · Technology Division

Bangalore, India
June 2014 - April 2016

- **TODO** `C++` : Used POSIX shared memory APIs for IPC andselect loop for file descriptors based event management, in a server application implementing FIX protocol. Built a connectivity layer for reference data service to aRabbitMQ message broker with protobuf wire format. Integrated Chef to be used as a configuration management and deployment tool for the application

Goldman Sachs
Summer Intern · Securities Division

Bangalore, India
May 2013 - Jun 2013

- **Java to Proprietary language Integration** `C++ Java` : Implemented support for common building blocks of Algorithmic Trading Platform(written in proprietary language) to JVM based languages(java and scala). Implemented type marshalling of a generic datatype in proprietary language to JVM based languages. Used JNI(Java Native Interface), Method Reflection and Annotations in Java to facilitate calling methods of proprietary language from Java and vice-versa

Claritics
Software Engineering Intern · UI Team

Pune, India
June 2014 - April 2016

- **Various UI Stuff** `Ruby` : Developed APIs in ruby on rails for Claritics Data Analytics Application, used in automatic creation of user accounts and automatic registration of user applications. Developed a ruby on rails application for showing graphs using High Charts, for top user applications of the month in terms of maximum data sent by the application. Developed the UI for showing notifications related to user applications depending on sudden changes in trends of real time data

PROJECTS

WebQ | Bachelor's Project `C++` : Implemented a virtual queue to improve user experience during web server overload. Consists of two web proxies, that together simulate a virtual queue of web requests, and shape incoming load to match server capacity. Published as research paper in IEEE/ACM International Symposium on Quality of Service (IWQoS) at Portland,OR,June 2015

Virtual Memory for OS161 `C` : Enhanced OS161 to support virtual memory with non-contiguous memory allocation, swap file facility, demand paging scheme and LRU replacement policy. Designed and implemented VM manager and address space of process containing page table and swap file

Control Flow Graph Language Processor `C++` : Created a compiler and interpreter for processing high level control flow graphs from GCC Supported arithmetic, conditional, intra-procedural control-flow statements and procedure calls

Programming Skills

Languages: C++ , C , Java , Python , JavaScript , Ruby , Bash/Ksh
Technologies: React , MongoDb , MySQL , Ruby on Rails , Kafka , RabbitMQ , Chef