

ANSHU AVINASH

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EDUCATION

Year	Degree	Institution/Board	CPI/%
2015 (expected)	BTech-MTech Dual Degree (CSE)	IIT Kanpur	PG: 9.6/10.0 UG: 9.1/10.0
2010	XII	KV ASC Center(S), Bangalore (CBSE)	96.8%
2008	X	KV ASC Center(S), Bangalore (CBSE)	98.2%

TECHNICAL SKILLS

- Programming Languages: C/C++, Java, Python, Haskell, Scala, SQL, JavaScript
- Frameworks and Libraries: OpenCV, OpenMPI, AngularJS and AngularDart, Play, Drupal, CUDA
- Database: MySQL, Cassandra, Titan
- Tools and packages: L^AT_EX, bash scripting, git, make, octave

INTERNSHIPS

Self Tuning Optimizer in MariaDB

Google Summer of Code, May-August 2014

- Replaced the hard-coded constants in MySQL server optimizer with self tuning coefficients, resulting into better query plans
- Involved understanding MySQL server internals, coding in C++, version control using git, building a project using cmake

Canary services for Facebook infrastructure

Facebook Inc., Menlo Park, USA, May-July 2013

- Learnt about existing tools that various teams in Facebook use for deploying canary services
- Consolidated these tools into a more generic framework
- Involved working with large scale distributed systems that stand at foundation of Facebook infrastructure, advanced python coding, git, MySQL etc.

PROJECTS

Distributed web application for IIT Kanpur

Dec 2012-present

- Designed a web application to bring all the activities involving logistics and information organization at a central place
- Used Angular Dart for frontend development, Scala and Titan (Cassandra) database in backend, Jenkins for deployment

Detection of malicious nodes in unstructured P2P (*Topics in Distributed Systems*)

Aug-Nov 2013

- Implemented Group Malicious Detection algorithm, similar to Too Late algorithm for detection of malicious peers in an unstructured P2P network using Java and PeerSim

Higher Order Functions in C++ (*Topics in Object Oriented Language Implementation*)

Jan-April 2014

- Implemented a type-safe framework of C++ class templates (called Functoid) for higher order functions

Browser-X: A simple browser written in Haskell (*Functional Programming*)

Jan-April 2013

- Implemented a basic browser in Haskell with both GUI and CLI using Network.HTTP, gtk, webkit and sqLite3

Other Course Projects

- **Structure from Motion:** Estimated 3-D structures from 2-D image sequences coupled with local motion signals
- **Compilers:** Created a compiler using LEX/YACC for the ADA language
- **Computer Networks:** Implemented ipconfig utility to display information about all network interfaces

SCHOLASTIC ACHIEVEMENTS

- Secured 2nd position in Kendriya Vidyalaya Sangathan (KVS) at national level in class X CBSE
- Received Kishore Vaigyanik Protsahan Yogna (**KVPY**) scholarship in 2008
- Received National Talent Search Exam (**NTSE**) scholarship in 2008
- Attended International Mathematics Olympiad Training Camp (**IMO-TC**) organized at HBCSE, TIFR in 2009
- Received **Academic Excellence Award** for year 2010-11 and 2011-12 at IIT Kanpur

POSITIONS OF RESPONSIBILITY

Coordinator, Programming Club

May 2012 - Mar 2013

- Conducted lectures and organized competitions on various topics including Competitive Programming, Web development and Application development

Teaching Assistant for Algorithms II and ESC101

- Apart from designing and evaluating assignments, helped students in understanding the course content

Link Student, Counselling Service

2012-13

- Helped an academically weak student in all of his courses