

Arnab Ghosh

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EDUCATION

IIT KANPUR

BTECH IN COMPUTER SCIENCE

Expected July 2016 | Kanpur, IN

Major CPI: 8.8 / 10.0

DAV PUBLIC SCHOOL

Grad. May 2012 | Jamshedpur, India

Board : CBSE

Performance: 92.8%

RAJENDRA VIDYALAYA

Grad. May 2010 | Jamshedpur, India

Board : ICSE

Performance: 95.4%

COURSEWORK

UNDERGRADUATE

Approximation Algorithms *

Compilers *

Databases *

Machine Learning IITK & *Coursera*

Cognitive Science

Probability And Statistics

Data Structures And Algorithms

Operating Systems

Theory Of Computation

Computer Organization

Discrete Mathematics

Introduction to Logic

Abstract Algebra

Unix Tools and Scripting

Real Analysis

Complex Analysis

Linear Algebra

Introduction to Electronics

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SKILLS

SYSTEMS

• Working with SPEC benchmarks

• Intel Architecture Specific

Experimentation

PROGRAMMING

Over 5000 lines:

Java • Shell • JavaScript • Octave

• Perl • L^AT_EX • Android

• C • C++ • CSS • PHP

Familiar:

Google Map API • MySQL • Python

• Assembly • Bluespec Verilog

• GNUPlot • Beamer

EXPERIENCE

CARNEGIE MELLON UNIVERSITY | SUMMER UNDERGRADUATE RESEARCH INTERN ADVISED BY PROF. ONUR MUTLU

May 2014 – July 2014 | Pittsburgh, PA

- Helped in coming up with a model for estimating slowdown of a particular app when running alongside Co-Running threads using the Cache Access Rate Alone and when run Alongside other threads .
- The study further aimed at proposing a mechanism for cache allocation and bandwidth allocation to ensure Quality of Service (QoS)
- Wrote Synthetic Benchmarks which targeted a definite Memory Access Pattern which would cause interference to the Applications from the SPEC Benchmark Suites which reduced the mean Speedup to 50 % of the original .
- Wrote Another Series of Synthetic Benchmarks which would generate access patterns in a way that it tries to fit in the cache and cause the interfering application cache contention.

TATA STEEL | SUMMER INTERN : ANDROID DEVELOPER

May 2013 – July 2013 | Jamshedpur , IN

- Developed an Android App for managing own expenses and to monitor the expenses provided for friends while on a trip.
- Designed and completed the Back-End and the Front-end and published it on Google Play. **Link :**
<https://play.google.com/store/apps/details?id=com.arnab.meandmyfriendsexpense>

RESEARCH & PROJECTS

BRAIN AND MANIFOLD GROUP | UG RESEARCH

Present | Kanpur, IN

Worked with **Prof Amitabh Mukherjee** to efficiently predict epileptic seizures from the EEG data of an epileptic person collected roughly an hour ago . The dataset that was used was of the American Epileptic Society.

We used a decision-tree based model and another model based on Support Vector Machines using a Gaussian Kernel.

COMPUTING LABORATORY | COURSE RECOMMENDER, AUTO GRADER

IIT Kanpur, IN

- Coded up a course recommender system based on the Collaborative Filtering Algorithm .
- Coded up an automatic grading system to help professors identify clusters in case of relative grading and also better visualise the distribution.

ACHIEVEMENTS

2014 Selected for the ACM ICPC Regionals IIT Kharagpur

2014 Selected for Summer Research Internship , Carnegie Mellon University

2014 National Finalists , Tata Crucible Campus Quiz , Mumbai

2014 North Zonal Champions , Tata Crucible Campus Quiz , New Delhi

2014 Academic Excellence Award , IIT Kanpur

2013 Qualifier , ACM ICPC Regionals IIT Kharagpur

2013 2nd Runner Up , Yahoo Hacku IIT Kanpur

2012 All India Rank 267 , IIT JEE

2011 Limca Book Of Records Quiz Champion , Jamshedpur

2009 Runner Up , TCS IT WIZ , Bhubaneswar

^a* indicates ongoing course