

Anant Prakash

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EDUCATION

IIT KANPUR

BACHELOR OF TECHNOLOGY
IN CHEMICAL ENGINEERING
July 2016 - May 2020
Kanpur, India

COURSEWORK

COMPUTER SCIENCE

Computer Networks
Principles of Database Systems
Data Structures & Algorithms
Computer Systems Security *
Introduction to Programming *
** Awarded A* for exceptional performance*

MATHEMATICS

Computational Methods in
Engineering

SKILLS

Proficient

C\C++ • GoLang • Python

Familiar

Node.js • Perl • SQL
Bash • Ruby

POSITIONS

COORDINATOR

PROGRAMMING CLUB
IIT KANPUR

- Organised and conducted workshops and lectures on programming topics in a team of three.
- Organised and set problems for various programming and capture the flag contests on campus.

MISCELLANEOUS

- Open Source contributions in SciPy computing library and Leaflet JavaScript library
- Answers written on stackoverflow have reached 1.5 million people

ACHIEVEMENTS

- 2017 **Ranked 16** in **ACM-ICPC Asia Kharagpur Regional** Contest; Among 3,290 contesting teams from Asia West Continent
- 2018 **Candidate Master** on codeforces, top 6.6% among 46,000+ active members
- 2016 Received **Academic Excellence Award** for year 2016 in IIT Kanpur; Top 10% in a batch of more than 800 students
- 2014 **Qualified** for **Indian National Mathematical Olympiad**; Top 1% in 32,500 students

WORK EXPERIENCE

TOWER RESEARCH CAPITAL | CORE ENGINEERING INTERN

May 2019 - July 2019 | Gurgaon, India

- Interned with Compute and Development Platform, responsible for building company's internal dev-infra and ensuring its reliability and scalability.
- Built permissions management system for code repositories in the company, which allowed simplified access control for over 800 employees.
- Implemented automatic configuration of code repository servers of the company.
- Wrote a safe upgrade plan for Gitolite: analysed consistency and wrote rollback logic.

DUNZO INDIA | SOFTWARE ENGINEERING INTERN

May 2018 - July 2018 | Bangalore, India

- Interned with the team responsible for task allocation and task prediction systems.
- Actualized auto-stockout of task requests by monitoring & predicting the task queue.
- Built the pipeline for monitoring tasks and workers, now used by 1M orders/month.
- Improved ML based predictions by designing an online correction algorithm.
- Worked with Redis, AWS Kinesis and Postgres, programmed in GoLang, Bash, Node.js

NYC OFFICE, IIT KANPUR | INFRASTRUCTURE TEAM VOLUNTEER

August 2017 - April 2018 | Prof. Manindra Agarwal | Kanpur, India

- Rewrote build scripts for server installations for CoreOS in Linux container format.
- Worked on rolling upgrade of Etcd (distributed key-value store) for K8s cluster.
- Worked with Docker, CoreOS Applications, Kubernetes and Concourse CI.

PROJECTS

GOOGLE SUMMER OF CODE | MATRIX.ORG

May 2018 - August 2018

- Worked on Dendrite (a Matrix Server) which enables secure, decentralized chat.
- Developed APIs for conflict-free sync between servers using matrix protocol.
- Integrated authorization based on Google Macaroons with decentralized delegation.
- Implemented typing indicator by sending it through Kafka streams and matrix API.
- Implemented idempotency for client-server APIs using in-memory and DB cache.

HTTP THREADRIPPER | SELF PROJECT

November 2019

- Built a highly concurrent HTTP server using libev library and unix sockets in C++.
- Achieved 65k requests/sec on a single thread on a modern personal computer.

INTERNET RELAY CHAT | ADVANCE TRACK PROJECT

August 2016 - November 2016 | Prof. Vinay P. Namboodiri

- Built a server-client chat app for multiple people to chat simultaneously.
- Implemented personal message, channels and message persistence for offline users.
- Used C++ non-blocking sockets with Select and simple round-robin polling
- Integrated multi-threading by utilizing the OpenMP library.