Dipesh Khandelwal

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ACADEMIC QUALIFICATIONS

2022	B.Tech, **Computer Science and Engineering** (Major), Industrial and Management Engineering (Minor)	Indian Institute of Technology, Kanpur	CPI : 9.6/10

SCHOLASTIC ACHIEVEMENTS

- 2019, 2020, 2021 | Received **Academic Excellence Award** from IIT Kanpur for 3 consecutive years
- 2018 | Secured All India Rank **211** in JEE-Advanced, among 160,000+ candidates
- 2018 | Secured All India Rank **334** in JEE-Main, among 1.2 million candidates
- 2018 | Secured All India Rank **137** in Kishore Vaigyanik Protsahan Yojana (KVPY) exam, awarded fellowship
- 2016 | Awarded National Talent Search Examination (NTSE) Scholarship

PROFESSIONAL EXPERIENCE

- **Systems Engineer | Quadeye**   (*Jun'22 - Jun'24*)
    - Developed **low latency systems** facilitating algorithmic trading for strategies around the globe
    - Revolutionized market data integrity and simulation models of 30+ exchanges with 35+ market data sanity checks
    - Engineered a solution for **cost-effective data storage** and heavy computing, leveraging **AWS services** like s3 buckets, FSx disk and spot instances
    - Leveraged **data analytics** to streamline the generation of corporate actions and dividends data using publicly trusted databases
    - Exposure: Bash, C++, Linux, Pandas, Perf, Python, R, SQL, Vim

- **Software Engineer** (Intern) | **Cohesity**   (*May'21 - Jul'21*)
    - Built light-weight SnapFS-gRPC client to use SnapFS filesystem over gRPC to **store RocksDB data remotely** in Cohesity's views
    - Achieved a throughput of 18.08 MBps through client over gRPC in comparison to throughput of 22 MBps on NFS mount
    - Designed and developed a custom RocksDB-SnapFS environment, enabling RocksDB to use SnapFS-gRPC client as the underlying layer to use Cohesity views for storage
    - Exposure: C++,Google glog, Google ProtoBuf, gRPC(Remote Procedure Call), Java, JNI, RocksDB, SnapFS

- **Cybersecurity Analyst**(Intern) | **CloudSEK**   (*Apr'20 - Oct'20*)
    - Engineered a expansively scalable subdomain takeover checker tool that checks the vulnerability of a subdomain for takeover, powered with a database containing 70+ signatures of different services
    - Enhanced a Subdomain Enumeration Tool, expanding its scalability for public accessibility over the internet. Implemented pytest-based test fixtures to ensure robustness in web scrapper testing
    - Generated a database of popular hosting services by analysing Forward DNS dataset
    - Exposure: Azure, Dockers, FDNS, Massdns, MySQL, pytest, Rabbitmq, Scapy

- **Student Research Associate** (Intern) | **C3i, IIT Kanpur**   (*Dec'19 - May'20*)
    - Developed environments to automate **DOS** and **DDOS** attacks and implemented CVEs
    - Exposure: Dockers, DDOS, DOS, Firmware, Nmap, Open-VAS, Scapy, Wireshark

- **Software Developer** (Intern) | **Summer of Code, IIT Kanpur**   (*May'19 - Jul'19*)
    - Developed an **e-commerce web app** for listing of small-scale manufacturers with end-to-end transaction management.
    - Exposure: NodeJS, PassportJS, PostgreSQL

PROJECTS

- **Codagami Compiler** (Course Project)   (*Jan'21 - May'21*)
    - ANSI-C to x86-64bit compiler supporting advanced features such as short circuiting, typecasting and float handling
- **Life@IITK** (Programming Club, IITK)   (*May'19 - Jul'19*)
    - Developed a web-app using Django and React for unifying all activities, student body updates at IITK on single platform

SKILLS

- **Programming Languages:** Bash, C++, Python, R
- **Frameworks** & **Libraries:** Django, Google Protocol Buffers, gRPC(Remote Procedure Call), RabbitMQ, Pandas
- **Utilities:** Dockers, Git, Linux, Latex, MongoDB, MySQL, Perf, RocksDB, Sqlite3, SVN, Vim, Wire Shark
- **Business** & **Financial:** Derivative Contracts, Governance of Global Value Chains, Microeconomics, Strategic Marketing