

Yash Srivastav

SENIOR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute of Technology, Kanpur

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EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution(Board)	CGPA/%
July'15 – Present	B.Tech, CSE	Indian Institute of Technology, Kanpur	9.05/10
2015	AISSEE – XII	Birla High School, Kolkata (CBSE)	96.6%
2013	ICSE – X	AG Church School, Kolkata (CISCE)	96.6%

SCHOLASTIC ACHIEVEMENTS

- 2015 **All India Rank 105**, Joint Entrance Exam Advanced (amongst 120,000 candidates)
- 2015 **All India Rank 288**, Joint Entrance Exam Main (amongst 1.3 million candidates)
- 2015 **All India Rank 12**, KVPY Scholarship

WORK EXPERIENCE

New York Office, IIT Kanpur

FULL STACK DEVELOPER, PROF. MANINDRA AGRAWAL

- Summer Internship continued as a volunteer and peer mentor.
- Worked on a scalable web application with an extensive technology stack.
- Implemented Notifications, XSRF & XSS Protection and a method to batch process api requests as part of the backend api.
- Integrated ProseMirror into an existing Angular App
- Reimplemented an entire Angular application as per the redux architecture.
- Technologies used: Scala with Akka, Couchbase, Angular with TypeScript, Redux

India

May 2016 - Present

New York University

SUMMER INTERN, PROF. JUSTIN CAPPOS

- Worked on setting up an one-shot ansible project to enable organizations to easily set up debian package rebuilding infrastructure.
- Implemented three different microservices to orchestrate the entire setup. Also interacted with the reproducible-builds community to get design decisions approved.
- Added support for ed25519 cryptographic keys to the supply chain security framework - in-toto.
- Technologies Used: Ansible, Python, Perl, debian build tools

New York City, USA

May 2018 - July 2018

Google Summer of Code

OPENPRINTING, THE LINUX FOUNDATION

- Worked on the Common Printing Dialog Project.
- Allows easy integration of any new printing systems into existing applications.
- Helped design the Dbus API and decide its usage.
- Implemented the Dbus API in the LibreOffice code.
- Technologies Used: Dbus, C++, CUPS, Google Cloud Printing

Summer 2017

Localites

FULL STACK DEVELOPER

- Worked on a web application using the MERN stack.
- Rewrote the entire nodejs server in typescript with unit testing in jasmine for better type-checking and code reliability.
- Also rewrote react app into an NgRx based angular app for better code organization and structure.
- Technologies Used: MongoDB, React, NodeJS, Angular

Freelance

Dec 2018 - Apr 2018

SKILLS

Proficient	C, Golang, Python, Javascript
Experienced	C++, Java, Scala, Android
Exposure	Haskell, Rust, Dart, Perl
Frameworks	Express.js with Node.js, Akka with Scala, JavaScript, TypeScript, Angular, Redux, Flutter
Utilities	Linux shell utilities, Git, Docker, Ansible, Postgres, MongoDB, OpenCV, LaTeX, Vim, Emacs

RELEVANT COURSES

Introduction to Programming(A*)	Discrete Mathematics	Computer Organization
Computer Architecture	Data Structures and Algorithms	Probability & Statistics(A*)
Computing Laboratories - 1(A*)	Computing Laboratories - 2(A*)	Compiler Design
Functional Programming(A*)	Computer Systems Security	Computer Networks(i)

A*: Grade for exceptional performance i: In progress

PROJECTS

Dashboard Web Extension/App

INTER IIT TECH MEET

IIT Kanpur

February, 2017

- Involved creating a web extension which acted as a user's home page and helped display all the information relevant to a student studying in IIT Kanpur in a main Dashboard. (News, Events, Student Search, Share Auto)
- Server Side was implemented as multiple **microservices** in various languages (Golang, Python, NodeJS) involving IPC via **JSON RPC**.
- Fully **Dockerized backend** running on a docker-compose setup. Written with **scalability** in mind. (github.com/yashsriv/beethoven)
- Judged **1st** among all the IITs participating in the competition.

ABU Robocon 2016

MEMBER, TEAM ROBOCON IIT KANPUR, PROF. BHASKARDAS GUPTA

IIT Kanpur

Oct'2015 - Mar'2016

- An autonomous robot, which did not contain a driving actuator had to traverse a game field using the energy provided to it by another robot in form of a non contact force.
- I was involved in **Image Processing** used in the autonomous robot for **color detection** and **line following** to traverse the arena.
- Came **3rd** out of 105 teams participating in Nationals at Pune, India.

Smart Mirror

PROGRAMMING CLUB

IIT Kanpur

Summer'2016

- Built an **IoT Mirror** with an RPi and a display fitted with a 75% reflecting mirror.
- The mirror had features such as weather forecast, calendar and pushbullet notifications of a user (determined via face identification).
- Received **Best Applicable Project** amongst all summer projects under the Science and Technology Council, IIT Kanpur.

Code.Fun.Do

24 HOUR HACKATHON

Microsoft India

Sept'2015

- Developed an App to help connect teachers and learners.
- Used cross-platform **Universal App Platform** for Windows 10 and a server written in C#.
- Was selected as one of the **best five ideas**.

tango

COURSE PROJECT

Compiler Design

Jan'2018-April'2018

- A compiler for go written in go as a course project for compilers. Compiles from go to x86 assembly.
- Supports a subset of the go language including pointers, type checking, recursion and some other common language features.

Branch Predictor

COURSE PROJECT

Computer Architecture

April'2018

- Designed a branch predictor for an intra-class branch prediction championship.
- Was adjudged the **best predictor** amongst all submitted.

POSITIONS OF RESPONSIBILITY

- **Head, Web, Antaragni 2017:**
Worked on a full MEAN stack application which was an improvement over the previous year's product. As part of the Core Team was involved in decisions regarding the festival and was responsible for managing the stays and travels of all Celebrities and Artists invited to the event.
- **Coordinator, Programming Club, IIT Kanpur 2017-18:**
Conducted lectures for freshmen and organised competitions. Took the initiative of conducting a "**Winter Camp**" where a select few freshmen were introduced to topics ranging from cryptography to web development.
- **Secretary, Programming Club, IIT Kanpur 2016-17:**
Helped Conduct and organize various lectures for freshmen as well as developed a few web applications under the programming club.
- **Senior Executive, Web, Antaragni 2016:**
Worked on a NodeJS webserver for a college fest. Had a dynamic website modifiable easily by non-programmers and supported android app as well with an API.

MISCELLANEOUS

- Developed a Python Application using **Pygame** for 2 player as well as single player Reversi gameplay as part of ACA Semester Project. Link - [github:yashsriv/Reversi-Python](https://github.com/yashsriv/Reversi-Python)
- Ported the educational OS, nachos, to go lang. Link - [github:yashsriv/go-nachos](https://github.com/yashsriv/go-nachos)
- Developed an AI for complete-knowledge two-player games in Haskell as a course project. Implemented Connect 4 with GUI as an instance of that AI. Link - [github:yashsriv/haskell-connect-4](https://github.com/yashsriv/haskell-connect-4)
- Exploited and patched the zoobar server as part of Computer Systems Security Course.
- Developed an android app which was a Websocket Client for a Websocket Server hosting a multiplayer game
- Contribute to Open Source projects like pdf.js and thelounge
- Won Fresher's Science Quiz
- Among the top 15 teams of India in CSAW 2016, Capture The Flag
- Mentored 6 students in building a chat application using nodejs and websockets as an Semester Project