Nishant Mittal

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EDUCATION

Indian Institute of Technology (BHU), Varanasi

Aug. 2018 - May 2023

 $Integrated\ Dual\ Degree\ (B.Tech\ +\ M.Tech)\ in\ Computer\ Science$

CPI - 8.65

EXPERIENCE

Yugabyte Jan 2023 - Present

Software Engineering Intern

- Part of the core database team.
- Exposure: C, C++, Java.

Cloud Native Computing Foundation (CNCF)

Sep 2022 - Nov 2022

Linux Foundation Mentorship

- Built real-time collaborative features for a visual cloud-native infrastructure designing and management tool called Meshmap.
- Wrote a websocket based signalling server in GoLang to indicate user presence, facilitate peer-to-peer communication.
- Ensured a conflict-free experience for multiple users working on the same design using CRDTs.
- Built features like real-time cursor movements, indicating the part of design other users are working on, etc. for better collaborative experience.
- This project was demoed at KubeCon 2022.
- Exposure: Golang, Websockets, WebRTC, CRDTs, React.

 $\mathbf{Google} \qquad \qquad \mathbf{May} \ 2022 - \mathbf{July} \ 2022$

Software Engineering Intern

- Evaluated multiple image formats in terms of compression ratio, latency, quality of the compressed image, etc. and selected the best one for the project's use case.
- Explored multiple pdf handling libraries and integrated "pdfium" with the android app via Java Native Interface.
- Sandboxed the processes by pdfium library to tackle potential security issues related to malicious PDFs.
- Exposure: Java, C++, Android, Java Native Interface.

Productiv Nov. 2021 – April 2022

Software Engineering Intern

- Designed & implemented a connector to ingest the user engagement data from Showpad's API. Enhanced the flexibility and fault-tolerance of the connector by making it capable of processing data in small batches.
- Fixed bugs in multiple connectors like Azure, Pagerduty and Salesloft and researched on the feasibility of 15+ connectors with the Productiv's platform.
- Made various improvements to the scripts that handle automated creation of jira tickets to ensure a smoother developer workflow.
- Exposure: Node. Js, Amazon Web Services.

Gojek June 2021 – July 2021

Product Engineering Intern

- Worked on writing backdoor APIs, internal scripts, generating Swagger documentation for the Customer Owner micro-service powered by Ruby on Rails.
- Followed test-driven development and wrote unit tests for all the code written by me.
- Exposure: Ruby, Rails, Rspec, Sidekiq, Redis, Kafka, Swagger, Open API, Microservice architecture.

Google Summer of Code | Joplin

June 2021 - Aug. 2021

Student Developer

- Re-engineered the templates feature in the Joplin desktop application as a separate plugin to make the feature more robust and maintainable.
- Ensured a smooth one-click transition from the new plugin from the legacy feature.
- Wrote unit tests and setup CI workflows using GitHub actions.
- Wrote scripts to automate the creation of GitHub release and announce the release in Joplin forum.

- It is one of the most downloaded plugins in Joplin and has 100+ stars on it's GitHub Repo.
- Exposure: React, Electron. Js, TypeScript, GitHub Actions.

Quickwork Nov. 2020 – Dec. 2020

Software Engineering Intern

- Added 5+ applications including Firebase, Cloudinary and Proofhub to Quickwork's portfolio and built connectors for them by consuming their REST APIs.
- Exposure: REST APIs, Node.Js.

Google Summer of Code | Oppia

June 2020 - Aug. 2020

Student Developer

- Improved the webpack configurations that resulted in 50% faster builds and very low (around 20s) consecutive build times.
- Added types to all the TypeScript code. Manually wrote types for third-party dependencies that didn't have types already.
- Enforced multiple new lint checks and wrote custom lint checks to ensure that there are proper comments whenever typescript errors are ignored.
- Refactored code to make it more modular, migrated multiple components from AngularJs to Angular. Wrote units tests for 100% of the code written by me.
- Wrote documentation explaining webpack configurations and typescript conventions to be used as a reference by other contributors.
- Exposure: Python, TypeScript, Webpack, Angular, CI/CD.

Projects

GSoC Organizations gsocorganizations.dev

- A site for viewing and analyzing the info of the organizations participating in Google Summer of Code.
- 200+ stars on GitHub and 500k+ page views.
- Tech Stack: GatsbyJs, Web Scraping, GraphQL.

ACHIEVEMENTS

- Awarded Honourable Mention and Certificate of Merit by Gymkhana, IIT (BHU) Varanasi for my contributions to the institute being part of Science and Technology Council and serving as the Secretary of Club of Programmers, IIT (BHU) Varanasi.
- Rated Candidate Master (1916) on <u>Codeforces</u> and 5-Star (2010) on <u>Codechef.</u>
- Secured 1st position in Microsoft Codefundo++ 2k19 and represented the institute in the national finals.
- Secured 3rd position in Microsoft Codefundo++ 2k18 in my freshman year.
- Bagged an AIR of 939 in JEE Advanced 2018, and 794 in JEE Main 2018 amongst 0.2 million, and 1 million candidates respectively.