

Divya Chauhan

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Education

8.5/10 **BTech in Computer Science and Engineering**, Indian Institute of Technology Kanpur | Uttar Pradesh, India

2016-2020

Work Experience

Google, Software Engineer Google Cloud | Bengaluru

October 2022 - Present

- Part of **NPI (New Product Introduction) Central** team responsible for accelerating new hardware launches.
- Maintain software that monitors fleet's health. It includes detecting and mitigating hardware failures and improving the mean time to repair with a reduced cost by optimizing repair actions to fix the broken hardware.
- Drove the effort to onboard accelerators including A3 Supercomputer (Nvidia H100 Tensor Core GPU).
- Active contributor to **Project Simplicius** that enables faster Time-to-Market with reduced developer toil for NPIs by leveraging industry innovation (DMTF's Redfish standard). It aims to provide composable, model-based self-service health rules that improve NPI deployment efficiency and allow validations in the early stages of deployment.

Goldman Sachs, Analyst Global Markets Division | Bengaluru

October 2020 - October 2022

- Part of Fixed Income Currencies and Commodities (FICC) Systematic Market Making (SMM) team.
- Developed low latency C++ applications to connect to exchanges and fetch market data present in different financial protocols (FIX, Itch, Ouch, OMNet API, or SBE) and update different books (Order book, Trade book, Statistics book) for internal clients to consume and place order on exchange.
- Responsible for onboarding new exchanges to extend trading and was the primary point of contact for Asia Pacific venues.
- Maintained application to upload daily market data to AWS S3 for research purposes.

NxtBig Software Labs, Web Development Intern | Remote

May 2020 - Aug 2020

- Developed the front-end of the Income Tax Filing Application for Indian soldiers using the Mobile First approach. Extended the same for civilians also.

Flipkart, Software Engineer Intern | Bengaluru, India

May 2019 - July 2019

- Automated the process of (de-) whitelisting of customers for the Buy Now Pay Later (BNPL) feature.
- Developed a user dashboard and built APIs to generate relevant metrics used to define credit amounts for whitelisted customers.

Projects

Gem5 Statistics

Jan 2023 - April 2023

Prof. Debadatta Mishra

- Added a feature to print stats at a more granular level in Gem5. For starters, implemented a breakdown of stats for user and kernel modes. It can be later extended to the core level.
- Extended gemOS operating system to provide the region it is operating in by writing to MSR.

Computer Graphics

Aug 2019 - Nov 2019

CS360, Prof. Vinay Namboodri

- Created a 3D maze game using OpenGL and GLEW.
- Used DFS to generate a different 3D maze in each trial and texture mapping and image-based rendering to render walls, floor, and grass. [Source code]

Golang to x86 Compiler

Jan 2019 - April 2019

CS335, Prof. Amey Karkare

- Implemented a Golang to x86 compiler in Python from scratch for a subset of Go language.
- Created a Lexical Analyzer using ply/yacc, Parser, Intermediate Code Generator, and Assembly Code Generator.

Building Operating system gemOS

Aug 2018 - Nov 2018

CS330, Prof. Debadatta Mishra

- Built Paging structures using context creation, mapped physical memory according to its virtual address layout.
- Implemented the major page fault exception handlers, system calls, and basic interrupt and signal handlers.

Depression Therapy using CBT

May 2017 - July 2018

Treadwill, Prof. Nitin Gupta

- Worked on the website treadwill.org which aims to help individuals deal with stress, low mood, lethargy, and other depressive symptoms.
- Developed a Chit-Chat and a patient listener bot using AIML along with python interpreter. Structured the training data for generating .aiml files. Developed a Python module for converting structured data to AIML files.

Teaching Assistant Experience

ESO207A: Data Structures and Algorithms

IIT Kanpur, Jan 2020 - April 2020

Prof Raghunath Tewari

- Responsible for setting and grading question papers

Skills

Programming Proficient: C/C++, | Familiar: Javascript, Java, Python, Bash
Utilities and Tools Git, Vim, Linux shell utilities, \LaTeX , Docker