Maninderpal Singh

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EDUCATION

Punjabi University   Percentile 89.8%
Department of Statistics — B.Sc. in Computer Science, Statistics & Mathematics   *Jul. 2019 – Jul. 2022*

EXPERIENCE

Instahyre   Sep 2023 – Present
Full-Stack Developer   *New Delhi, India*
- **Bug fixes:** Have been investigating a wide range of issues and developing fixes in a routine within the team, resulting in improvement of various modules written in AngularJs and Django, in terms of reliability and user experience
- **Development:** Collaboratively working and implementing features to develop and enhance some of the in-progress and existing modules

Buyceps   Dec 2022 – Sep 2023
Software Engineer   *Mumbai, India*
- **Lead backend engineer:** 'Buyceps Marketplace', producing fundamental platform level changes, such as unified authentication setup, order/shipment processing, data modeling etc
- **Search:** Developed an Algolia powered 'Product Browser', created DB indices and UI/UX for employees, to make browsing blazingly fast
- **Database load:** Responsible for noticeable optimizations on major GraphQL resolvers and REST APIs, effectively reducing the N+1 problem by 75 percent, in terms of SQL calls

Studypaq   Oct 2022 – Dec 2022
Software Engineer   *California, United States*
- **Security:** Discovered & fixed a critical vulnerability in company's payment accessible core product
- **API design:** Took responsibility of designing and developing core of the APIs and backend architecture for MVP Studyplan feature
- **Server performance:** Improved highly used endpoints' response by approx. 47% on average, improving initial server response time for SSR

PROJECTS

Hunter - Online contests hosting platform (SaaS)   Jan 2022 – Sep 2022
Repository Deployed at *hunter.cambo.in*
- **Backend:** Wrote the back-end architecture involving Node's ExpressJs in TypeScript, & PlanetScale for MySQL
- **Client side:** Leveraged Angular framework to build components/services in TypeScript, consuming REST APIs
- **Remote code execution:** Wrote Python & Bash scripts to run inside Docker container that compiles, executes and test participants' code; supporting C, C++, JavaScript and Python
- **Deployment:** An NGINX instance initially on Azure's VM & DB service, then migrating to Oracle & PlanetScale

DinoPlusPlus - A Terminal Based C++ Game (ASCII Graphics)   Apr 2021 – May 2021
Repository
- **Gameplay:** Programmed the entire game play mechanics, menu system & animations without any specialized console game engine or code library
- **Frame desynchronization:** Fixed by caching the frame until fully computed and then drawing all at once
- **Collision detection:** Implemented proper edge detection of any object colliding, render time

Contactless - WhatsApp's API driven android app   Jul 2020 – Aug 2020
Repository, *XDA Forum*
- **Android app:** Developed UI/UX using Kotlin consuming Web API allowing users to chat with any contact

TECHNICAL SKILLS

Programming/Scripting Languages : Python, JavaScript/Typescript, C/C++, Bash
Tools/Frameworks : Django, Angular, Postgres, NextJs, SQL, Git, Mercurial, Docker, MongoDB, GraphQL
Technical : Operating-Systems, Statistics, Linear Programming, OOP Design, Data structures & Algorithms
Soft Skills : Communication, Management, Planning