Aaroosh Agarwal

Software Engineer
aaroosh.agarwal@gmail.com | +91-6397022389
GitHub | Linkedin | LeetCode

EDUCATION

JSS Academy of Technical Education   Noida,india
Bachelors Computer Science and Engineering   July 2019 - July 2023
CGPA: 8.58

Delhi Public School   Agra
Inter-School Science   2016 - 2018
CGPA: 10

EXPERIENCE

Mtree Software Pvt Ltd | Software Engineer   Noida, India | July 2023 - Present
- Implemented new features in C++ for core exata simulator.
- Spearheaded the successful implementation of the Option 6 split and DRX leading to better benchmarking and monitoring of the system for maintaining network performance.
- Reduced simulation time by 50% through extensive debugging and fixing memory leaks.
- Collaborated with the development team to ensure seamless integration with existing 5G features.

Mtree Software Pvt Ltd | Software Engineer Intern   Noida, India | January 2023 - July 2023
- Contributed to the 5G team and successfully implemented the Integrated Access and Backhaul (IAB) feature.
- Improved system performance by 20% by creating regression suites that test all existing features in the exata network simulator.
- Enabled the client to benchmark 5G IAB networks, to increase their network range and performance.

SKILLS

Programming Languages:	C++, Python, JavaScript, C, Java, Golang
Libraries/Frameworks:	ReactJs, ExpressJs, Django, Flask, Bootstrap, Redux, FastApi, NLP
Tools / Platforms:	Git, GitHub, Jest, Cypress, CMake, Docker, minikube
Databases:	MySQL, MongoDB

PROJECTS / OPEN-SOURCE

Contextual AI Assistant   *python, NLP, Transformers, Flask*
- Built an AI Assistant to perform question answering tasks, to reduce time for students and professors by summarising research papers.
- Fine tuned the BERT model using SQuAD dataset to increase model efficiency and accuracy on question answering tasks.
- Deployed the fine tuned model on Flask web server and created the user interface with React.js to give seamless user experience.
- Implemented web app by breaking it down into different microservices for each task.

Django Blogs | Link   *Django, Bootstrap, Jinja*
- Developed a blogging site where users can register, post blogs and comment on blogs written by other users.
- Learnt and implemented cookie based authentication for logging in users and authorization for posting blogs and comments.
- Developed a functional understanding of SQL databases by storing user blogs and credentials.
- Implemented server side rendering using Jinja templating engine, for generating web pages for different data requests.

Snake Game | Link   *C++*
- Developed a classic Snake game application in C++ from scratch without the use of graphic libraries.
- Implemented game mechanics such as snake movement, food generation, collision detection, and score tracking, utilizing OOP's principles to organize code.
- Used file handling in C++ to store and manage the top 100 high scores achieved by players.

HONORS & AWARDS

- Secured 1st place in Inter School Coding Competition.