



Kshitiz Agrawal

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GitHub:	github.com/Kshitiz1403

Technical Skills and Tools

Skills	Nodejs, TypeScript, Docker, Apache Kafka, Nginx, PostgreSQL, MySQL, MongoDB, Redis, ReactJS, React Native, Redux, JavaScript, HTML, CSS, Python, Java
Tools	Postman, AWS, MS Azure, Oracle Cloud, Algolia Search, Firebase, VS Code, Adobe Creative Cloud, Figma

EDUCATION

Board	Tenure	Educational institution	CGPA/Percentage
B. Tech (CSE) AIML	Sep 2020 – Ongoing		
Class XII	May 2020		
Class X	May 2018		

ACADEMIC PROJECTS

Full Stack (Web)	<ul style="list-style-type: none">▪ COLLABORATIVE IDE (May 2022 - June 2022) [TypeScript Nodejs MySQL Docker ReactJS WebSocket Redis Monaco YJS Nginx Oracle Cloud]<ul style="list-style-type: none">- Developed a full-stack Collaborative IDE enabling concurrent users to edit and compile code.- Utilized Docker Engine API to construct isolated Docker containers for secure code compilation.- Supports collaborative conflict free editing using CRDT with auto-completion using language server protocol (only for certain languages).- Links: https://ide.kshitizagrawal.in/ ; https://github.com/Kshitiz1403/Collaborative-IDE/
Full Stack (Mobile & Web)	<ul style="list-style-type: none">▪ PLACEMENT FORUM (December 2022 – March 2023) [TypeScript NodeJS Apache Kafka React Native MongoDB Algolia Search Azure Nginx]<ul style="list-style-type: none">- A Reddit-like forum for the college students as well as additional features for the placement team.- Implemented an infinitely nested comments tree to enhance student interaction.- Leveraged Algolia indexing and Apache Kafka message queue to enable efficient search for posts, comments, and communities during creation and modification.- Links: https://github.com/Kshitiz1403/placy/
Full Stack (Mobile)	<ul style="list-style-type: none">▪ SMART DUSTBINS PLOGGER (November 2022 – December 2022) [TypeScript Nodejs React Native Embedded C Arduino Redux MongoDB Redis Google Direction API Azure Nginx]<ul style="list-style-type: none">- Developed a solution enabling users to collect litter during their jogging routes from point A to point B, while suggesting smart trash bins along the way for waste disposal by rerouting.- The trash bins have sensors and displays, operated by Arduino. A special TOTP key is utilized to encrypt a JWT, which is renewed every 30 seconds. This architecture enables the trash bins to be used offline.- Links: https://youtu.be/HU5Wpg-VFks?t=745 ; https://github.com/Kshitiz1403/Sudarshan/

INTERNSHIP

AIRBLACK July 22 – Sep 22	<ul style="list-style-type: none">▪ Backend Intern: [Nodejs MongoDB TypeScript Python Retool]<ul style="list-style-type: none">- Contributed to the development of a flow for purchasing top-up plans, including payment processing, notifications, and invoice generation.- Contributed to a code base for setting up cron-jobs to send push notification reminders to users.- Improved internal tools for platform experts and the operational team.
Ply Picker Feb 22 – Apr 22	<ul style="list-style-type: none">▪ Full Stack Intern: [Nodejs Express MongoDB ReactJS]<ul style="list-style-type: none">- Achieved 90% reduction in manual efforts for the Data Entry team by automating data population from CSV files into the database.- Developed the authentication workflow for the application.

EXTRA-CURRICULARS AND ACHIEVEMENTS

Achievements	▪ Competitive Programming - 266/10534 (Top 2%) Scaler Academy Apex Edge Contest
Responsibilities	▪ Served as a judge for participants' HackDSC (GDSC) web projects.
Extracurricular	▪ Guest Speaker at AdvITyA (College Annual Fest) (January 23) delivering a web development roadmap talk and mentoring session to 400+ students.

ADDITIONAL INFORMATION

Hobbies	<ul style="list-style-type: none">▪ Avid learner of Distributed Computing and Computer Science internals.▪ Playing Chess – Rated 950 Elo points on Chess.com
Languages	▪ English, Hindi