

# TUSHAR JAIN

Software Development Engineer

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## EDUCATION

**Indian Institute of Technology Guwahati**

Bachelor of Technology in Computer Science & Engineering

Assam, India

Jul. 2018 – May 2022

## EXPERIENCE

**Software Development Engineer**

Jul 2022 – Jul 2023

OLA Electric Pvt. Ltd

Bengaluru, India

- Associate maintainer of the various reverse proxy services across various projects to ensure **reliability, safety, and availability** over the organization's **network/data traffic** in **Java Spring Boot, Dropwizard**, and **Golang**
- Sole Creator and Maintainer of the internal plugin for collecting end user activity analytics over the system in the **Magento2 CMS** via **Moengage WebSDK**.
- Creator and Maintainer of easy to compose Web Components to display **geo-spatial** data via **MapLibre** libraries, primarily used in the org to display country-wide service info-graphics.

## PROJECTS

**B Compiler(Work In Progress)** | Personal Project

Jun 2025

**Tech:** Zig, C, Assembly

- An attempt at writing a compiler for the **B programming language** predecessor to the C programming language proposed by **Ken Thompson**.
- The intent is to make it a **cross platform compiler** that compile to multiple OS's and Architectures.
- Learning instruction models and methods of optimizations while generating machine level code from higher level languages.

**Social Media Application** | Team Project (7 People, Backend Lead)

Jul 2022

**Tech:** Java, React, MongoDB, Spring Boot

Code

- A social media application with the base features of posts, reactions, comments, connecting, feed.
- This project focuses on implementing a secure authentication for protecting sensitive information.
- As the backend lead of the project, I enhanced my communication skills to ensure information consistency, clarity on goals and deliverables between my team and other leads.

**Seam Carver** | Personal Project

Apr 2024

**Tech:** C, STB Image Library

Code

- An implementation of the **seam-carving algorithm** in C.
- This Algorithm resizes an image across one axis without losing details.
- This Algorithm does not require any ML models to achieve the aforementioned goal, instead by removing pixels along a seam in the orthogonal axis after a computation to determine an energy value of that seam.

**Tasks Manager** | Individual Project

Aug 2024

**Tech:** Go, Echo, Postgres

Code

- A simple task tracking application back-end written in **go**.
- Features **JWT** based Authorization.
- Has all the **standard planner's** features implemented.

## TECHNICAL SKILLS

- **Fundamentals:** Data Structures, Algorithms, Optimization, System Design, Debugging
- **Languages:** C/C++, Go, JS/TS, Java, Python, Zig, Haskell\*, Rust\*
- **Web Frameworks:** Astro, Echo, Fiber, Spring Boot, HttpZ
- **Libraries:** React, AlpineJS, HTMX, jQuery, SolidJS
- **Database:** MySQL, PostgreSQL, MongoDB, \*Redis
- **Tools:** Git, Docker, Bash, TMUX, NeoVim, Make

\*Elementary Proficiency