

Pradesh Gwachha

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Work Experience

Software Engineer – RiddhaSoft Pvt. Ltd.

Nov 2021 - Aug 2022

- Spearheaded the development and maintenance of the bank's mobile applications using the Flutter framework, ensuring high performance, quality, and responsiveness of the apps.
- Collaborated closely with UI/UX designers to translate wireframes and prototypes into high-quality code, enhancing user engagement and satisfaction.
- Integrated RESTful APIs to connect mobile applications with backend services, ensuring efficient and secure data communication between the app and the server. user-centric mobile interfaces

Projects

E-commerce Mobile App

github

- Implemented secure user registration and login functionality using Firebase Authentication. Integrated social sign-in options such as Google and Facebook for convenience.
- Managed dynamic product data using Firebase Firestore, ensuring real-time updates and synchronization.
- Leveraged Firebase Cloud Functions to handle backend operations like order notifications and updates.
- Technologies used: Dart, Flutter, Firebase, SQLite, Provider

JWT (JSON Web Token) Authentication System

github

- Designed and implemented a secure authentication system using JSON Web Tokens (JWT) for user verification and session management.
- Developed a React.js frontend with a Node.js backend with express.js, integrating MongoDB as the database.
- Implemented token-based authentication with refresh token support, ensuring secure and scalable access control.
- Enhanced security by applying hashed passwords, expiration policies, and middleware-based token validation.

Image Enhancement System

github

- Developed a deep learning-based image enhancement system using TensorFlow and OpenCV to improve image clarity through denoising and restoration techniques.
- Collected and processed the DIV2K dataset, resizing and normalizing high-resolution images for training and evaluation.
- Implemented a custom U-Net architecture to learn mapping from low-quality (noisy) images to enhanced outputs, achieving perceptual quality improvement.
- Optimized the pipeline for image preprocessing, training, and testing, demonstrating hands-on expertise in CNNs, image processing, and real-world enhancement tasks.

Technologies

Languages: Java, JavaScript, Python, Dart, Kotlin, PHP, GOSU, SQL (MySQL, Postgres), MongoDB, Supabase, HTML5/CSS3

Frameworks: Flutter, Express.js, Tailwind, Bootstrap

Tools: Git, Node.js, GitHub, VS Code, Visual Studio, PyCharm, IntelliJ, NetBeans, Sublime, Warp

Education

Troy University, Masters in Computer Science

August 2023 - May 2025

- **Relevant courses:** Software Engineering, Database, Computer Architecture, Analysis of Algorithms, Operating System
- **CGPA:** 3.63 / 4.0

Orchid International College, BS in Information Management

Aug 2017 - May 2022

- **CGPA:** 3.88 / 4.0