

iPaper – Research Paper Summarization & Recommendation System

Capstone project for Master's in Computer Science (2025).

Microservices architecture with FastAPI (backend), Next.js (frontend), ML service, and MongoDB.

Implemented Retrieval-Augmented Generation (RAG) using ChromaDB, Google Gemini API, and LangChain.

Features:

Automatic research paper summarization (extractive & abstractive).

Grouping of papers by topics for easy exploration.

Recommendation engine using BERT embeddings for semantic similarity.

Dockerized deployment on Google Cloud Run with CI/CD via GitHub Actions.

PU Assist – University Utility App

A side-hustle mobile app with 30,000+ active users.

Provided university students with exam results, notices, and academic resources.

Built using Flutter (cross-platform), integrated with Django backend.

Published on Google Play Store (and previously Apple App Store).

Operates in auto-pilot mode, with demand from users for continued updates.

Government & Outsourced Projects (Virtual Technology)

Gym Management App – featured access control, training session booking, and membership management.

E-commerce Application – online shopping solution with secure payments and order management.

Government Projects (Nepal) – collaborated on large-scale digital platforms, such as:

SSF (Social Security Fund) system backend using Django.

Gandaki Health & Hello CM local government applications.