

Richin Mrudul

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EDUCATION

Purdue University

B.S. in Computer Science; Concentration in Machine Intelligence

West Lafayette, IN
Expected December 2027
Relevant Courses: Data Structures & Algorithms, OOP (Java, C), Computer Architecture, Discrete Math, Statistics & Multivariate Calculus

TECHNICAL SKILLS

Languages: C/C++/C#, Java, Python, Go, TypeScript, JavaScript, SQL, HTML, CSS, Bash

Libraries/Frameworks: React, React Native, Node.js, Next.js, FastAPI, JUnit, PyTorch, TensorFlow, scikit-learn

Technologies & Tools: REST API, Git, Docker, AWS, CI/CD, GCP, PostgreSQL, MySQL, Django, Netlify, Render

EXPERIENCE

Boilerexams

Backend Developer

West Lafayette, IN

August 2025 – Present

- Improving backend systems for **Boilerexams**, serving **30,000+** students and processing **8.5M+** submissions
- Migrating API endpoints from **TypeScript/Prisma** to **Go (Golang)** to improve backend scalability and latency
- Optimized **PostgreSQL** queries for **8.5M+** submissions across **3,000+** questions, reducing query latency
- Containerized backend services with **Docker** and improved reliability via **logging** and **error handling**

Profitize

Software Engineer

Remote

July 2025 – Present

- Built a SaaS analytics platform for **500+** **Amazon** sellers automating profit analysis and product research
- Engineered scraping pipeline with **Python**, **Playwright**, **Selenium**, & **RapidFuzz**, reducing research time **80%**
- Implemented real-time fuzzy matching across Amazon listings to improve product data accuracy
- Deployed infrastructure using **Netlify**, **Render**, and **GitHub Actions**, achieving **< 2 load times**

The Data Mine - Purdue University

Undergraduate Data Science Researcher

West Lafayette, IN

August 2024 – May 2025

- Built an **AI-assisted data pipeline** for the **Indiana Soybean Alliance**, cutting collection time **96%** (428→14s)
- Integrated **LLMs** like **ChatGPT** to automate program classification with **NLP-driven** analysis
- Migrated hard-coded datasets to a live **PostgreSQL** database enabling real-time updates and search
- Developed an admin dashboard for publishing and managing program data through a scalable backend

PROJECTS

FitTrack | [Website](#)

June 2025 – July 2025

- Built a full-stack fitness tracker using **React** and **Firebase** for workout logging and progress tracking
- Implemented onboarding with **Firebase Auth** and **Google OAuth** to personalize plans from user fitness data
- Integrated **OpenAI GPT-4** to generate personalized **7-day workout plans**, improving completion **45%**
- Used by **20+** users generating **100+** plans and logging **500+** workouts in the first **3 weeks**

Cooked | [Website](#)

July 2025

- Built a full-stack meal tracker with **React**, ranking recipes using an **ELO-based comparison system**
- Designed relational **PostgreSQL** schema linking meals, users, tags, and rankings for fast queries
- Implemented auth and profile system with **JWT** and **Cloudinary** image uploads
- Built search, filters, and **CRUD** workflows with streak tracking, driving **3+ meals logged/user/week**

NBA MVP Predictor

December 2024 - March 2025

- Built an **ML MVP prediction model** using **scikit-learn** and **pandas** on historical **NBA player data**
- Preprocessed **5,000+** player records, removing low-activity players and irrelevant features to improve accuracy
- Implemented model training, evaluation, and serialization using **Python** notebooks and standalone scripts
- Deployed a **Flask API** serving real-time MVP predictions through accessible **HTTP endpoints**