

HUDA MARTA

ham2167@columbia.edu linkedin.com/in/huda-marta huda-marta.netlify.app github.com/hm2156

Education

Columbia University

Sept 2021 – May 2025

Bachelor of Science in Computer Science

New York, NY

Relevant Coursework: Full-stack development, Distributed Systems, Computer network, Cloud computing, Object-oriented Design, Mobile iOS App Development, Natural Language Processing, Computer Graphics, Data Visualization

King Abdullah Univeristy of Science and Technology

Anticipated graduation: January 2027

Masters of Computer Science

Thuwal, Saudi Arabia

Experience

Software Engineering Intern

June 2024 - Oct 2024

Sirdab — YC W23

Riyadh, KSA

- Designed and implemented backend infrastructure for consumer-facing expiry tracking using **Ruby on Rails, PostgreSQL, and Sidekiq**, with scalable **RESTful APIs** and background processing
- Refactored large-scale inventory pipelines (16K+ SKUs) with Redis caching and transactional logic — enhancing reliability and enabling low-latency responses for inventory-critical operations
- Developed SEO enhancement pipeline with Next.js, increasing organic traffic by 29% through improved sitemaps, metadata generation, AI-generated blogs, and strategic backlinking
- Strengthened system reliability by automating test workflows with RSpec, fixtures, and Sentry for CI/CD integration

Software Developer

Feb 2024 - May 2024

Wacafe

Remote

- Developed a full-stack reservation app with TypeScript, React, TailwindCSS, and Firebase; reduced booking abandonment by 25% through iterative UI/UX optimization
- Built RESTful backend services integrating Moyasar and Apple Pay, and implemented loyalty coupon logic with Firebase Cloud Functions

Software Engineering Intern

July 2023 - Sept 2023

Piflow

Remote

- Built a cross-platform financial management app in React Native with Firebase backend and Cloud Function logic for real-time data sync
- Integrated D3.js to visualize dynamic financial data, improving user insight and engagement

Projects

GenAI Community Hub | *Python, FastAPI, Docker, ChatGPT & Gemini APIs, GCP*

Jan 2025

- Developed a containerized microservices platform for multi-model GenAI comparison, integrating ChatGPT and Gemini APIs with services for user auth, post voting, and comment threading.
- Architected containerized microservices with FastAPI, Docker, and GCP — integrating secure auth, token validation, and real-time response pipelines

Sharded Key-Value Store (Fault-Tolerant Distributed System) | *Golang, RPC, Paxos*

Dec 2024

- Built a Paxos-based distributed key-value store with dynamic sharding and reconfiguration for fault tolerance and sequential consistency
- Handled concurrency, node crashes, and at-most-once RPC delivery to ensure robust multi-replica performance. Mirroring production-grade backend principles such as failover, leader election, and consistent data replication

Adaptive Bitrate CDN Proxy & DNS System | *Python, Sockets, DNS, Apache*

Oct 2024

- Engineered a custom HTTP proxy with EWMA-based bitrate adaptation to optimize real-time video delivery under fluctuating bandwidth conditions
- Developed a raw-socket DNS resolver using round-robin and latency-aware logic to enable resilient traffic routing and reduce streaming lag

Technical Skills

Languages: Python, Ruby, Golang, TypeScript, C/C++, Javascript

Backend & Databases: PostgreSQL, Redis, MySQL, Firebase, REST APIs, MongoDB, Sidekiq, Supabase

Cloud & InfraAWS, GCP, Docker, CI/CD, Redis, Firebase, Fly.io, Kubernetes

Observability Testing: Sentry, Postman, RSpec, GitHub Actions

Frameworks & Libraries: Express.js, Flask, Next.js, Node.js, React.js, React Native