

Yatharth Mogra

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github.com/yatharthMogra | NY, USA

Education

New York University	NY, USA
MS in Computer Science	Sep 2025 – May 2027
Coursework :Data Structures and Algorithms, Operating Systems, Network Security, Reinforcement Learning.	
Indian Institute of Technology Mandi	Mandi, India
B.Tech. in Data Science and Engineering	Jul 2019 – Jun 2023
Coursework: Programming Paradigms, Big Data & Cloud Computing, Optimization in Data Science, Deep Learning, Computer Vision, Linear Algebra, Topology, Matrix Theory, Numerical analysis, Deep Learning, Computer Vision.	

Experience

NYU Langone Health	New York, USA
Research Assistant	November 2025 – Present
• Developed an end-to-end multimodal deep learning pipeline to predict time-to-total knee replacement in knee osteoarthritis patients by integrating baseline 3D knee MRI scans with longitudinal clinical and tabular data, modeling the task as a time-to-event survival prediction problem across cohorts totaling 3,000+ patients.	
• Implemented and evaluated DAFT-based conditioning and multimodal attention mechanisms to fuse heterogeneous imaging and clinical representations, achieving strong prognostic performance with C-index values up to 0.85 for time-to-TKR prediction while effectively handling right-censored outcomes.	
• Conducted large-scale training and validation on real-world institutional datasets, demonstrating 75–77% accuracy for multi-year surgical risk stratification and contributing to a peer-reviewed publication highlighting the clinical feasibility of personalized surgical timing prediction .	
Walmart	Banagalore, India
Software Engineer II	July 2023 – July 2025
• Engineered a distributed inventory-routing microservice (Java + Kafka + Spring Boot) orchestrating 50 K + daily device-return events with sub-100 ms response latency; implemented idempotent workflows, circuit-breaker resilience, and Grafana observability, fully automating return-channel decisions and recovering \$13 M in quarterly revenue.	
• Developed unified single-scan processing pipeline integrating asset IDs, wipe-status, and data-removal APIs; cut per-device processing latency by 110 s and standardized operations across 25+ fulfillment centers through parallel I/O.	
• Implemented fault-tolerant Direct Seller Delivery integration layer using Kafka streams and REST endpoints with retry queues and alerting; sustained 20K+ daily deliveries under zero-downtime deployments and achieved five-nines availability.	

ODE Holdings Inc.	AZ, USA
Data Engineer Intern	Jan 2021 – Aug 2021
• Orchestrated end-to-end AWS data pipelines , designing schema and orchestrating ETL workflows with AWS Glue and Lambda ; enabled automated processing and storage of over 2,000 users' data from 30+ applications, securely in S3.	
• Architected data infrastructure to integrate, transform, and analyze large volumes of multi-source personal data (Instagram, Facebook, Disney+Hotstar, Hulu), delivering actionable insights and supporting business intelligence for 2,000+ app users and multiple client-facing projects.	

Skills

Programming Languages: Python, C++, Go (learning), Java, TypeScript.

Query Languages: PostgreSQL, PL/pgSQL, PostGIS.

DevTools: Git, Bash, Powershell, Docker, Postman, Linux, Anaconda, Google Cloud App Engine(GCP).

Libraries/Frameworks: Flask, OpenCV, Tensorflow, PyTorch, OpenAI Gym, Numpy, Pandas.

Awards & Hackathons

• AWS Financial Hack, NYC - (2nd Place of 220 Teams) : Created DocuFlow, an auditing intelligence layer using Gemini, Landing AI ADE, and AWS services to convert financial documents into actionable insights and automatically flag invoice-contract mismatches.
• NASA Space Apps 2025 - (Best Cloudflare Implementation Award) : Built a CF Workers-based RAG system for fast PDF ingestion and AI-driven querying, delivering millisecond retrieval and winning first place at NASA NYC.
• Bravo Award, Walmart : Recognized for leading and delivering a platform-wide migration of Inventory Service API, completing it in record time with extensive integration testing to ensure zero surprises post-pilot.