Mayank **Mehra**

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Education

University of Waterloo   *Expected Graduation: Apr. 2026*
Bachelor of Computer Science (Co-op) BCS   *GPA: 3.8*
Relevant Coursework: Data Structures & Algorithms, Operating Systems, OOP, Machine Learning, Artificial Intelligence, Distributed Systems
Extracurriculars: Class Profile Project Manager - UW CS Club, Sponsorship Coordinator - TOHacks, Mentor - Canada Learning Code

Skills

Languages   Python, TypeScript, Javascript, Swift, C++, C, Kotlin, Go, SQL, HTML/CSS, Dart, Java
Technologies/Frameworks Nextjs, Angular, SwiftUI, NestJs, Express, Nodejs, PyTorch, Flutter, AirFlow, PySpark, Pandas, OpenCV, NumPy
Tools   Azure, AWS, Git, Docker, Bash, Jenkins, Postman, Cypress, Jest, Jira, ELK, Datadog, Snowflake, Figma, Blender

Experience

Software Engineer | Faire - Retailer Order Placement | Toronto, ON   *May 2024 - Expected End: Aug. 2024*
- Redesigning and migrating the Cart and Checkout experience to new architecture in SwiftUI for Retailer iOS app that introduces 700,000+ retailers to shop over 100,000 independent brands.
- Improving speed and efficiency for cart and checkout endpoints using Kotlin and Datadog to boost user experience.
- Releasing new owned features as A/B experiments to analyze effects on metrics such as GMV and order count.
- Implementing iOS app analytics/network logging and deep links support in internal developer companion tool built in SwiftUI using Network, Combine, and Multipeer libraries. Simplifying developer debugging and app navigation.

Full Stack & Data Engineer | RBC - Investor Services | Toronto, ON   *Aug. 2023 - Apr. 2024*
- Spearheaded the planning, development, and deployment of a new admin permissioning workbench on RBC One. Angular-based portal allows over 2000 clients to manage access to portfolio and investment data efficiently.
- Implemented and maintained RESTful APIs exposed to users and admin portal, executing business logic, CRUD operations, pagination, and search functionalities using NestJS, TypeORM, and Typescript.
- Created comprehensive test suites covering functional, unit, integration, and penetration testing for API endpoints and frontend components. Utilized Jest, Cypress, and Postman to achieve 95% test coverage.
- Developed a data seeder for local development to streamline database setup and testing processes.
- Developed DAGs using Apache Airflow to orchestrate flexible parameter-driven ETL workflows. Achieved a 60% reduction in data processing time through efficient data quality checks, cleaning, and ingestion using PySpark.

Software Engineer | Radish | Montreal, QC   *Jan. 2023 - May 2023*
- Developed microservices using Express.js, Node.js, and Azure to manage diverse requests, including Wix webhooks.
- Implemented CI/CD pipelines with Docker and GitHub Actions for efficient project deployment on Azure.
- Deployed a serverless CV and OCR app on Azure to automate ID validation with high accuracy using Python, Expressjs, OpenCV, Pytesseract, and Azure Functions.
- Spearheaded new iOS app project built using SwiftUI and a CLEAN architecture to facilitate order operations for 15+ delivery drivers through a reactive data flow, increasing driver efficiency by 35% and reducing order delivery times.
- Utilized Combine, MapKit, SocketIO, and CoreLocation to create features like real-time navigation and order tracking.
- Designed and published a document scanner iOS framework using AVFoundation, Vision, and SwiftUI enabling automatic detection, scanning, and cropping of documents with high precision.

Full Stack & Mobile Developer | UGO - TD Bank | Toronto, ON   *May 2022 - Aug. 2022*
- Implemented a responsive order flow for a Cineplex Gift Card Portal using Angular. Leveraged CRUD operations to verify, create, and retrieve product or client data.
- Designed a property search iOS app using Swift (UIKit), REST APIs, and MapKit. Implemented pagination, location-based property search, and rendering dynamic map data to streamline users' property search experience.
- Redesigned Angular sales portals for 5000+ active customers, adding mobile responsiveness and accessibility.
- Developed a Jenkins pipeline with Python and Fastlane to capture iOS app UI screenshots during builds, saving 5-8 hours weekly for QA. Presented this feature to the infrastructure team for future CI/CD pipeline improvements.

Projects

ScribeMe | Sentiment Analysis Web App ⌂
- Implemented a sentiment analysis journaling app using NextJS, Prisma, Langchain, and OpenAI APIs allowing users to track, question, and understand their journal entries over time.

Chess | C++ Object Oriented Programming Project ⌂
- Designed a Chess game in C++ with both text-based and graphical interfaces, utilizing OOP principles and design patterns like Observer, Strategy, and MVC.

UniFinder | Mobile App Development | Hack The North ⌂
- Developed a Flutter app using Firebase Rest APIs that helps university applicants stay updated with news, programs, and application schedules for all universities on one platform.

NFTMint | Web3 Flutter App | Proof of Concept ⌂
- Developed a Minting app that simplifies NFT creation for users. Built through an Express microservice that handle's ERC-721 contract generation and the minting process using Ethers, Hardhat, and Solidity on the Polygon Testnet.