

# Mardan Mahmut

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## Education

**Northeastern University**, MS - Data Analytics Engineering (GPA: 4.0/4.0) Aug 2024 - May 2026

- **Coursework:** Applied Natural Language Processing, Data Mining, Data Warehousing and Integration, Data Management

**University of California - Davis**, BS - Computer Science

Sep 2021 – Dec 2023

- **Coursework:** Machine Learning, Computer Vision, Agent-Based Modeling, Computer Graphics, Computer Architecture

## Technical Skills

**Languages:** TypeScript, JavaScript, Python, SQL, R, Swift, C/C++ , HTML, CSS

**Frameworks:** React, Next.js, Node.js, Express, Prisma ORM, TailwindCSS, pandas, NumPy, Scikit-learn, Matplotlib, Tensorflow

**Tools:** Git, Docker, AWS (EC2, RDS, S3), Supabase, PostgreSQL, MySQL, MongoDB, Firebase, Jupyter, Tableau, Postman

**Certifications:** Google Advanced Data Analytics  Oct 2024

## Experience

**Embedded Software Engineer**, NU Project Horizon – Boston, MA

Feb 2025 – Present

- Developing space-grade image compression in embedded C++ for CubeSat payloads using the Sony Spresense platform
- Conducting technical literature review on terahertz-band CubeSat systems to support early-stage RF design and mission feasibility planning

**Tech Fellow**, CodePath – San Francisco, CA (Remote)

Jul 2023 – Mar 2025

- Aided teaching of iOS and interview prep courses to 60+ students across cohorts, supporting Swift, Xcode, and DSA concepts

**Full-Stack Software Engineer (Part-Time)**, Franly – Santa Clara, CA

Jan 2024 – Aug 2024

- Integrated RESTful APIs for email outreach automation (MailChimp API) using TypeScript, SQL, and React, leading to improved engagement and providing data-driven insights
- Yielded a 76% increase in average search position by utilizing Screaming Frog SEO and Google Analytics to analyze website performance and developed dynamic XML sitemap


**Front-End Software Engineer Intern**, Shipnow – Buenos Aires, AR (Remote)

Jul 2022 – Sep 2022

- Streamlined component creation by reducing code complexity and enhancing reusability, achieving a 66% improvement in development time with React and TypeScript
- Designed and implemented mobile-friendly tabbed UI in React and Tailwind with four tabs to showcase shipment tracking solutions; enhanced UX using backlinks and Figma-aligned layout


## Projects

**Player Injury Prediction System**

 May 2025 - Jun 2025

- Developed an end-to-end injury prediction system using Random Forests and cross-validation on 2,500+ players (achieving 69.9% ROC AUC), integrated R-based scraping (worldfootballR) to pull TransferMarkt data, and optimized Python pipelines
- Built a PostgreSQL-backed data pipeline with R-to-Python integration and engineered 160+ features (e.g., workload, recovery time); applied SHAP for model explainability, enabling actionable insights for coaching staff
- Tools Used: Python, R, SQL, PostgreSQL, Scikit-learn, SHAP, pandas, Tableau, psycopg2

**Full-Stack E-commerce Platform**

 Feb 2024 – Mar 2024

- Developed full-stack e-commerce store plus admin dashboard using Next.js, Zustand, Prisma ORM, and PlanetScale, with secure Stripe checkout and dynamic product/order management
- Built modular dual-app architecture with real-time database sync and API-driven backend
- Tools Used: Next.js 14, TypeScript, Prisma ORM, PlanetScale, Stripe API, Zustand, Tailwind CSS, MySQL

**Miras: Uyghur Cultural Heritage Digital Archive**

 Repo Private – Ongoing

- Built a full-stack digital archive platform using Next.js and Supabase with full-text search, and advanced filtering, enabling users to explore 100+ digitized Uyghur cultural records through an interactive narrative and search interface
- Contributed to field digitization across Turkey and Central Asia by operating scanning and AV equipment and designing Supabase metadata schemas, enabling searchable storage and future OCR integration for multilingual archival access
- Tools Used: Next.js, Supabase, PostgreSQL, JavaScript, TypeScript, Python, AV Digitization Equipment