

# Umar Turdumambetov

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github.com/1hewarr10r | Portfolio

## Professional Summary

Machine Learning and Backend Engineer specializing in real-time market data ingestion, probabilistic modeling, and high-throughput insight generation. Experienced architecting FastAPI microservices, deploying PyTorch models into production, and building latency-critical pipelines used for prediction, ranking, and decision support. Focused on scalable data systems, LLM-powered analysis, and shipping end-to-end AI products that transform raw market signals into actionable intelligence.

## Technical Skills

**Languages:** Python, C++, Java, JavaScript/TypeScript, SQL (PostgreSQL, MySQL), Bash/Shell, HTML/CSS

**ML/AI Frameworks:** PyTorch, TensorFlow, YOLOv8, LangChain, Scikit-learn, Pandas, NumPy, XGBoost

**Backend & Data Engineering:** FastAPI, Flask, Node.js, Express, GraphQL, Prisma, Redis, Kafka, Airflow, Snowflake

**Cloud & DevOps:** AWS (EC2, S3, Lambda), Docker, Kubernetes, GitHub Actions, CI/CD, Linux, REST APIs

**Frontend:** React, Next.js, Redux, TailwindCSS, Vite, Figma

**Tools:** Git/GitHub, Jira, Postman, Vitest, Cypress, Agile/Scrum

## Projects

### PolyPredictor-Kit — 1st Place (QuackHacks 2025) | Devpost

- Engineered a real-time market insight engine using the Polymarket API + Gemini, delivering sub-**200ms** analytics across slugs, IDs, URLs, and dynamic search queries.
- Scraped and labeled **3,000+** community comments using an AI-driven sentiment and stance classifier, building a Snowflake-ready dataset for drift and volatility analysis.
- Architected a modular ingestion and validation pipeline that improved dataset consistency by **30%** and cut preprocessing overhead by **40%**.
- Optimized parallel fetch, batching, and retry strategies, boosting high-load throughput by **2.3x** and enabling continuous market-monitoring workloads.

### AI Visual Novel Creator — 1st Place (CodeDay 2025) | Showcase

- Developed a full-stack AI content engine combining Gemini story generation with Stability image synthesis, reducing content creation time by **55%** via async batching pipelines.
- Implemented a Ren'Py interaction backend for dynamic scene routing and branching-state transitions, enabling **fully adaptive** narrative logic.
- Engineered image-scaling and layout correction systems eliminating **90%+** rendering artifacts across resolutions.
- Added preload caching and fallback logic improving frame stability by **35%** under heavy asset-load conditions.

## Experience

### Canva

Nov. 2025 – Present

Remote

#### AI Design & Data Storytelling Extern

- Designed a modular AI content-generation pipeline enabling teams to produce tailored narratives at scale, increasing output volume by **45%**.
- Built an adaptive data-cleaning engine normalizing inconsistent inputs across projects, lowering error rates by **30%**.
- Introduced structured content schemas improving cross-team collaboration efficiency by **35%**.

### Kentush Micro-credit

Mar. 2024 – Jun. 2024

Kyrgyzstan

#### Software Engineer Intern

- Developed an ML-driven credit-risk system preventing **500+** bad loan decisions and reducing decision errors by **40%**.
- Reduced API processing time from **4.5s → 1.8s** via asynchronous FastAPI endpoints and Dockerized microservices.
- Optimized preprocessing and PyTorch inference paths, cutting model latency by **52%** and stabilizing high-load performance.

## Education

### Bellevue College

Jan. 2025 – Jun. 2027

#### Bachelor of Science in Computer Science | **GPA: 3.7**

Bellevue, WA

- Computer Science Teaching Assistant (CS210/CS211)** — Tutored 100+ students and improved performance by **15–20%** through debugging sessions, code reviews, and simplifying recursion/OOP/data-structure concepts.