ULAR KIMSANOV

SOFTWARE ENGINEER | FULL STACK DEVELOPER

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EDUCATION

Arcadia University - Glenside, PA

Bachelor of Science in Computer Science, Expected May 2027 **GPA: 3.94 / 4.00**

- **Honors:** Dean's Distinguished List (4x), Dean's Honors List (4x)
- **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Machine Learning, Deep Learning & Neural Networks, Database Systems, Design & Architecture, Object-Oriented Programming, Web Development, Complexity Analysis.

SKILLS

AI/ML & Agent Systems: Prompt Engineering, LangChain, LangGraph, CrewAI, Multi-Agent Systems, LangSmith, OpenAI API, RAG, NLP, Machine Learning, PyTorch, TensorFlow, Computer Vision.

Programming Languages: Python, JavaScript, TypeScript, Java, C/C++, HTML/CSS, SQL, Bash, Swift, Dart.

Frameworks: React, Next.js, SvelteKit, FastAPI, Node.js, TailwindCSS, SpringBoot , Express.js, Flutter.

Cloud & DevOps: Google Cloud Platform, AWS, Vercel, Cloudflare Workers, Docker, Kubernetes, CI/CD, Git.

Databases: PostgreSQL, MySQL, Supabase, Cloudflare D1, SQLite, MongoDB, Neon.

Tools & Platforms: Linux, WebSocket, Capacitor, N8N, ClickUp, Zendesk, Jira, Figma, Jupyter, MCP, Bun.

EXPERIENCE

Astera Holdings - Remote **Summer 2025**

Software Engineer Intern

- Engineered AI agent framework for sports analytics coordinating data ingestion, statistical analysis, sentiment extraction, and odds calculation agents through complex prompt chains, achieving 23% improvement in prediction accuracy and <500ms end-to-end latency.
- Co-led the architecture of a real-time prediction market platform (Kalshi/Polymarket-style) targeting 1M+ users, designing multi-agent AI system with LangGraph/CrewAI orchestrating 5+ specialized agents and FastAPI + WebSocket backend handling 10,000+ concurrent connections with <100ms market-making latency.
- Collaborated on cross-platform trading terminal (SvelteKit, Capacitor, TypeScript) with real-time order book visualization, implementing offline-first architecture with CRDTs for conflict-free state synchronization and atomic transaction processing across 50,000+ daily trades.

National Science Foundation - Remote **Jan 2025 - Present**

Software Engineer & Research Assistant

- Architected serverless cybersecurity education platform on Cloudflare Workers edge network (Next.js 15, TypeScript, D1 database) achieving <50ms global TTFB across 250+ locations.
- Engineered custom dynamic module registry system with intelligent prefetching and component-level code splitting, reducing initial bundle size by 85% and enabling sub-60-second onboarding across 16+ interactive learning modules.
- Built production-grade infrastructure including type-safe database layer (optimized indexes, ACID transactions), PDF certificate generation pipeline with R2 storage, and Core Web Vitals monitoring across 23,230 lines of strict TypeScript.

ZanEt Analytics Corporation - Philadelphia, PA **September 2025 - Present**

Software Engineer Intern

- Built production-certified OAuth SSO integration with Clever API for Unity WebGL educational game, implementing secure JWT-based session management, cross-origin cookie auth, and dual-flow login system using TypeScript, React, and Cloudflare Workers edge infrastructure.
- Optimized large-scale asset delivery (2.5GB) through Cloudflare R2 + Workers architecture, implementing intelligent caching layer (Service Worker API, Brotli compression) that reduced load times by 60% while solving browser quota limitations.

PROJECTS

Horizon - Banking App (Next.js, TypeScript, Appwrite, TailwindCSS, Plaid, Dwolla)

- Built full-stack banking platform with real-time fund transfers using Dwolla API and Plaid for multi-bank integration.
- Engineered server-side payment processing with Next.js Server Actions and Appwrite, implementing secure session management and transaction tracking across linked accounts.
- Developed responsive dashboard with TailwindCSS and Chart.js visualizations; deployed on Vercel with edge runtime optimization and Sentry monitoring for 99.9% uptime.

LectureFlow - AI Lecture Notes (Python, FastAPI, LangGraph, Next.js, PostgreSQL)

- Developed multi-agent orchestration system using LangGraph with Gemini 2.5 Flash and GPT-4o-mini, processing videos through parallel agent execution for lecture summarization and AI tool extraction.
- Engineered real-time SSE streaming architecture with smart PostgreSQL caching, achieving 99% cost reduction on repeat videos and sub-1-second response times for cached results.
- Built production-ready full-stack application with Next.js 15, implementing Server Components, TanStack Table for history management, PDF export, and cross-browser compatible UI (Safari 16.4+, Chrome 120+).

CryptoLive (React, FastAPI, WebSockets, Tailwind CSS, Ant Design, Kraken API)

- Built a real-time cryptocurrency tracking platform with TradingView-style candlestick charts, live WebSocket price streaming, and advanced search functionality using React, FastAPI, and Kraken WebSocket API
- Engineered real-time price updates via Kraken WebSocket v2, achieving <170ms latency for live market data streaming
- Developed interactive financial charts with 7 timeframes (1m-1D) using lightweight-charts library, featuring zoom, pan, and OHLC candlestick visualization with responsive data caching
- Designed modern glassmorphic UI with Tailwind CSS and Ant Design, implementing skeleton loading states, error boundaries, and mobile-responsive layouts with smooth CSS animations

Neural Digit Canvas (Python, PyTorch, Next.js, AWS Lambda, Docker)

- Developed full-stack ML web application achieving 98.2% accuracy on MNIST, with interactive drawing canvas and real-time digit classification. Deployed serverless backend on AWS Lambda using Docker containerization.
- Engineered complete production pipeline: FastAPI REST API, Next.js 15 frontend, dual model architecture (Linear & CNN), and automated CI/CD deployment to AWS ECR/Lambda and Vercel.
- Implemented comprehensive ML workflow with training visualization, model checkpointing, and performance evaluation, demonstrating end-to-end ML engineering from research to production deployment.

AWARDS & COMPETITIONS

- **National Cyber League (NCL) Fall 2024** - Top 4%
- **National Cyber League (NCL) Spring 2025** - Top 3%
- **ICPC Regional Programming Contest 2024** - Top #10
- **ICPC Regional Programming Contest 2025** - Top #5

PROFESSIONAL DEVELOPMENT

- **BEYA STEM Conference 2025**
- **Amazon University Event at BEYA 2025**
- **AWS Cloud Architect Certification 2025**

LANGUAGES

- **Fluent:** English, Russian, Kyrgyz
- **Proficient:** Turkish, Kazakh