# Almas Issakov

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## Education

**University of Pavia** — Milan, Italy

*Bachelor of Artificial Intelligence* — *06/28*

**Relevant Coursework:** Foundations of Artificial Intelligence, Machine Learning, Deep Learning and Neural Networks, Probabilistic Models and Reasoning, Algorithms and Data Structures, Computational Logic, Physics for AI

## Technical Skills

- **Programming Languages:** Python, C++, Swift, JavaScript, SQL
- **Frameworks and Tools:** Django REST, FastAPI, PostgreSQL, Redis, Nats, PyTorch, NumPy, Pandas, Docker, Git

## Projects

**Shadow Map AI Platform — Alem Plus Case** — Apr 2026

*Decentrathon 5.0 — 1st Place out of 190+ ($2,500) [Demo]*

- Implemented **tree planting, solar placement, apartment insolation, and worker rotation** workflows with geospatial ranking logic, OpenStreetMap/Overpass building data, and sunlight exposure analysis.
- Integrated **7 Alem Plus services**, including AlemLLM, RAGFlow, Redis, Text-to-Image, and Kazakh Speech-to-Text.
- Built a platform with **React, FastAPI**, plus a Telegram bot for AI recommendations and real-time field notifications.

**Car Damage Detection ML Model — inDrive Case** — Sep 2025

*Decentrathon 4.0 — 3rd Place out of 200 ($2,000) [GitHub]*

- Built a ResNet50-based multiclass classifier detecting dents, scratches, rust, and broken parts using **30,000+ images**.
- Achieved **92% accuracy**, **90% precision**, **89% recall**, **F1 = 0.895** with OpenCV preprocessing
- Designed a reproducible training pipeline with stratified batching, checkpointing and automated evaluation scripts.

**Micrograd Autodiff Engine** — Oct 2025

*Reimplementation of Andrej Karpathy's micrograd [GitHub]*

- Implemented a minimal backpropagation-based differentiation engine from scratch with **no ML libraries**.
- Built custom **Value** class supporting scalar operations, computation graph construction, and **gradient tracking**.
- Wrote manual **backward()** function performing reverse–mode autodiff via topological graph traversal.
- Implemented **neural network layers** and trained a tiny model using the custom autodiff engine.

**Airline Passenger Satisfaction Classification** — Nov 2025

*Tabular ML Classification Project [GitHub]*

- Predicted airline passenger satisfaction on **25,000+** passengers using tabular flight and service data.
- Build Custom logistic regression model and compared it to a tuned scikit-learn model (RandomizedSearchCV).
- Full ML pipeline: data cleaning, encoding, scaling, cross-validation, and evaluation (Accuracy ˜87%, ROC AUC ˜92%).

**Character-Level Language Model — makemore** — Nov 2025

*Rebuilt from Andrej Karpathy's bigram baseline [GitHub]*

- Implemented a character-level neural language model from scratch using only `PyTorch tensors` without high-level APIs.
- Built full training pipeline: tokenization, dataset batching, forward pass, manual loss computation, and optimization loop.
- Explored MLP and shallow transformer-style architectures, generating coherent name samples from the trained model.
- Added training visualizations and experimented with hyperparameters to study model capacity and overfitting behavior.

**AI Travel Guide** — Dec 2025

*Meta Llama Acceleration by Astana Innovations — 2nd Place ($1,000)*

- Developed multilingual voice assistant using Llama 3, Whisper STT, Bark TTS and a Qdrant-powered RAG pipeline.
- Achieved **2s response latency** for real-time retrieval and **88% RAG relevance accuracy**.
- Implemented streaming voice interaction loop with **93% transcription accuracy** for natural conversational UX.

## Achievements

**Indie Hacker — Owlpeer** — Jul 2025 – Aug 2025

*Top 5 at Demo Day — Nfactorial 2025 [App Store] [owlpeer.com]* — *Almaty, Kazakhstan*

- Selected to join the program from **2000+ applicants**, placing in the **top 4% of candidates.**
- Built **Owlpeer** — a micro-course generator that transforms YouTube videos into structured learning content.
- Achieved **4,400+ users**, **5,200+ App Store downloads**, and generating over **$500 MRR**.
- Recipient of a **$25,000 credits** from **Google for Startups** program.

## Experience

**Software Engineer — Visarun** — Apr 2025 – Present

*B2B SaaS for Visa Automation [visarun.ai]* — *Dubai, UAE, Remote*

- Automated 5+ workflows for **popular B2C destinations** across customer-facing application flows.
- Working on **multi-step browser automation** using **Playwright** to streamline visa application workflows.
- Delivered **production-ready, end-to-end automations** within multi-service Kubernetes environments.