# **Alexey Zaytsev**

Full-time learner. [Linux, Biology, Electronics] AI.

#### // EXPERIENCE

# AI/ML Engineer (Contract)

July 2024 - Present

**Various Clients** 

Agentic LLM systems, diffusion models, speech-to-text pipelines. Full-stack AI application development.

# **Machine Learning Engineer**

Nov 2023 - July 2024

io.net

Generative AI and MLOps.

### AI/ML Engineer (Contract)

Nov 2022 - Nov 2023

**Various Clients** 

Contract work in machine learning and software development.

# Career Transition / Independent

May 2020 - Nov 2022

Study

Self-directed

Deep learning and AI study. Open-source contributions. Side projects in ML/AI.

### **Electronic Engineer**

Dec 2018 - May 2020

Okra Solar — Canberra / Phnom Penh / Shenzhen

Smart solar grid tech: fully connected grid hub (Solar → Battery → regulated DC loads and high voltage sharing). Electronics, schematics, PCB design. DC-DC converters and analog monitoring circuits.

# **Electronics and Prototyping Engineer**

Sept 2016 - Dec 2018

**Self-employed** — Shenzhen, China

Digital, analog, and power electronics. Rapid prototyping and small-scale production manufacturing.

#### // RELEAVANT SKILLS

#### AI/ML

Python, PyTorch, JAX, CUDA, Transformers, Diffusion Models, Computer Vision, LLM Agents, vLLM, Hugging Face, LangChain, RAG, Fine-tuning, LORA, Stable Diffusion, CLIP, Embeddings, Vector Databases, Weights & Biases, FastAI

#### Full-Stack

SvelteKit, TypeScript, FastAPI, PostgreSQL, Tailwind CSS, SQLAlchemy, drizzle-orm, OAuth, Pydantic

#### Dev0ps

Docker, Linux, AWS, GitHub Actions, Supabase, Vercel, CloudFlare, S3

#### // EDUCATION

#### Université Denis Diderot

2013 - 2015

M.Sc. Systems and Synthetic Biology

#### **LETI University**

2003 - 2009

Specialist, Computer Security

#### // LANGUAGES

English Professional Russian Native Ukrainian Elementary CTO & Co-founder Sept 2015 – Sept 2016

**Koi.science** — Paris / Shenzhen

EdTech startup providing affordable laboratory equipment and teaching materials for molecular biology education in schools. Developed open-source spectrophotometer hardware, electronics, mechanical enclosures, and embedded software.

Research Intern May 2015 – Sept 2015

Centre de Recherches Interdisciplinaires (CRI Paris)

Development of a low-cost, open-source spectrophotometer.

Research Intern May 2014 – Jan 2015

**Institut Pasteur** — Paris

S. aureus, phages, CRISPR systems. Data analysis in BioPython.

Research Intern Jan 2014 – April 2014

Institut Curie — Paris

Microfluidics, micropatterning, exposing mammalian cells to electric fields.

Sr. Software Engineer June 2011 – July 2012

Nexenta Systems

Device drivers, kernel work for illumos (OpenSolaris fork).

# **Engineer-Programmer** Jan 2005 – Jan 2010

AltEll / Protei ltd

Linux kernel programming and maintenance on MIPS64, ARM and x86.