Neva Krien

Low-level systems programmer with research experience in LLMs.

AI Research & Education

- Mentee of Guy Tamir (Intel) since 2022; contributed to research and educational outreach in AI.
- Participated in a research team focused on large language models (LLMs) for C++ code generation.
  (Reference: our first paper 18-aug-2023)
- Built demo applications for Intel products, including presenting at an in-person Intel AI-PC workshop 2025.
- Authored example code used in Intel's official YouTube AI tutorials.

Language Design & Compiler Work

- Core team member of PAL: A new programming language currently under closed development.
- Built two toy compilers/interpreters:
  - One in **pure C99 + NASM**, including a full optimization pipeline (constant folding, loop unrolling, branch elimination).
  - One in **Rust**, using `unsafe` for a simple dynamic language with a VM.

Open Source & Community Contributions

- Contributor to cURL: Working on a PR for a 5-year-old issue, in collaboration with maintainers.

My Own Tools

- `source_viewer`: A language-agnostic Rust CLI tool for analyzing disassembly. Supports any language without requiring a special build.
- `auto_new`: A procedural macro for ergonomic constructor generation in Rust (100+ downloads in the first 2 days). Lightweight, fast, and dependency-free.

Educational Content

- Blog on Medium: Writings on systems programming.
- `benchmark-errors`: Educational repo with curated examples of common benchmarking pitfalls and statistical analysis.

Side Projects

- **Movie Subtitles Translation Tool**: Used by my mentor; converts and batch-translates subtitle files via CLI pipeline saved hours of manual translation work for 30 minutes of scripting.
- **Accidental Rebuild of pypi-timemachine**: Recreated functionality for reproducible PyPI builds.
- `vpn_proxy`: Simple tool for managing VPN exit IPs; made as a weekend learning project.
- AI Assistant Website: Small website using OpenAI API for scheduling; includes custom prompt logic and basic UI.
- ...and more.

Technical Skills

AI & ML: PyTorch, TensorFlow, Huggingface, Diffusers, OpenVINO, Intel IPEX
LLMs & Tooling: LangChain, OpenAI API, FAISS
Systems: x86_64 ASM (NASM, GAS), LLVM IR, Rust (unsafe, proc_macros), C, C++, CUDA (basic)
Data & Scientific: Numpy, Pandas, Scikit-learn, Matplotlib
Backend: Rust, C++, Go, Elixir, Java, C#, SQL, PostgreSQL
Frontend / GUI: HTML, CSS, JavaScript (basic), Raylib

Education

B.Sc. in Computer Science
- The Open University of Israel
- Currently in second year