

NEWTYPE AI R&D

Practical AI Solutions

newtypekk.com

- 🤖 Virtual assistants
- 🎮 AI-assisted game development
- ⊕ Autonomous systems
- 📈 Financial modeling and algorithmic trading
- </> AI-tooling

Virtual Assistants

"Reddy" assistant for Merlarossa.it, leading health & wellness app

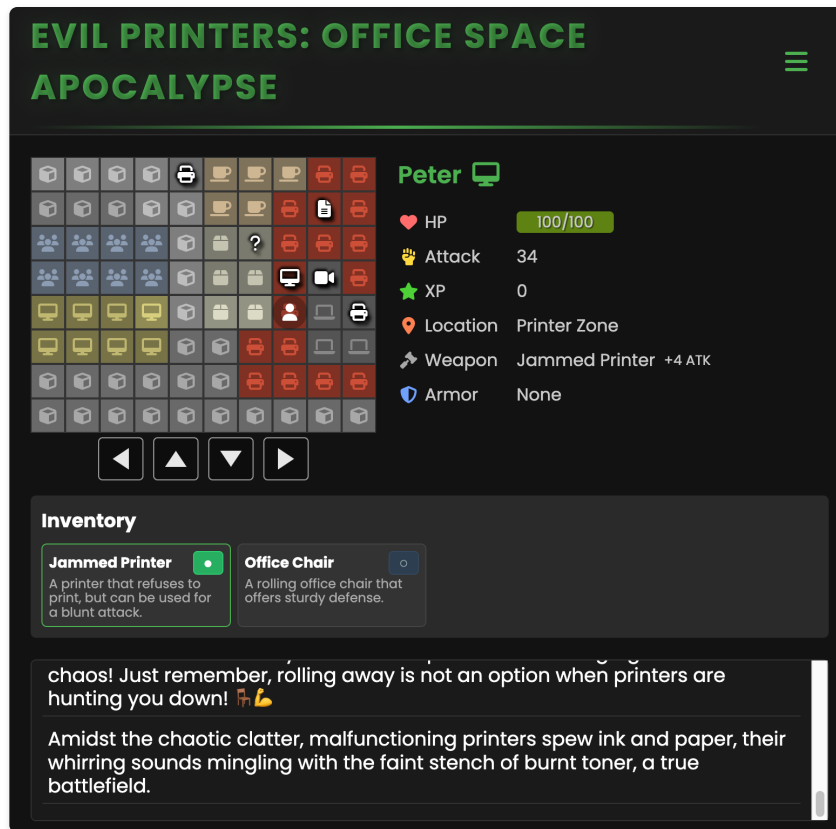
- Based on NEWTYPE's ChatAI platform on GitHub
- Intelligent Retrieval Augmented Generation (RAG)
- **Optimized** selective RAG access via **tool-calling**
- Structured output for reliability
- Scraping system for zero-effort database generation
- Per-message **fact-checking** (optional)



AI & Games: RogueLLM

A roleplaying game that creates scenarios based on player's input.

- Uses OpenAI's API (`gpt-4o-mini` as default)
- Automatic web-search to find relevant information
- Adapts to player's spoken language
- Try at roguellm.com
- See our [blog post](#)



AI & Games: Final Freeway

We recently introduced AI-generated stages.

A Python script builds a *context* file for LLMs, with:

- Documentation of stage format
- Design rules
- List of available objects
- Existing tracks for reference

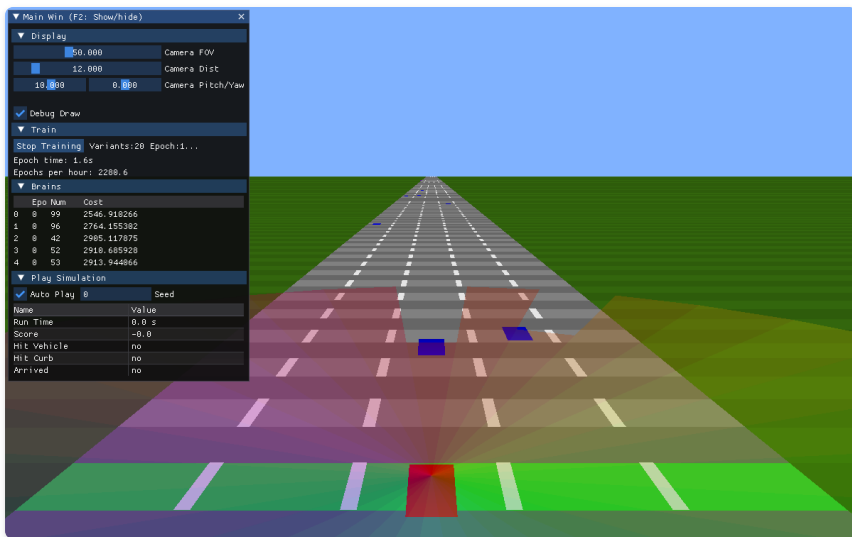
Human designer then uses this context to generate new stages with an LLM, for substantial savings in time.



Autonomous Systems

We develop highly optimized simulation code to speed-up training of models learning from the physical world. We implement Neural Networks both in C++ and with LibTorch/PyTorch for more complex tasks.

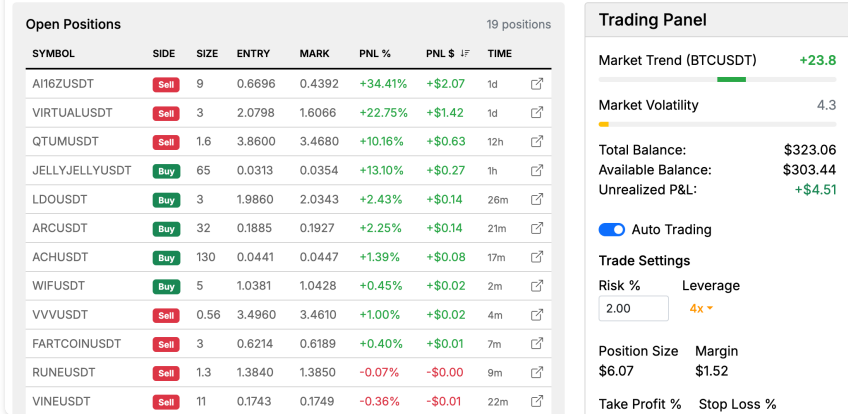
See [here](#) our minimal Deep Learning collision avoidance example written in C++.



Financial modeling & algorithmic trading

- Complete trading system with backtesting and real-time execution
- Time-series forecast with Neural Nets and Genetic Algorithms (C++ / LibTorch)
- High frequency trading (~3 seconds per tick) on 600+ cryptocurrencies

HFT Climber



AI-tooling

- Consulting and training on AI-assisted development
- Best practices with *Cursor, Copilot, Windsurf, Cline*
- Scripting and automation with *Python, JavaScript, OpenAI API*
- Scripting for localization, sentiment analysis, SEO, etc.
- LLM self-hosting with *Ollama*

Our Team



Davide Pasca

Co-founder, Lead Software Engineer

30+ years of experience

Languages: Italian, English, Japanese



Junfang Zhang

SAP/ABAP Specialist

10+ years of experience

North China University of Science & Technology

Languages: Chinese, English, Japanese, Italian

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