

# TOMÁŠ HUTŇAN

✉ tomas@hutnan.dev   🌐 hutnan.dev   🌐 hutnan   🌐 TomasHutnan

Brno, Czech Republic   ·   Slovak national

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## SUMMARY

Third-year BSc Informatics student (95th percentile) specializing in machine learning, computer vision, and systems engineering. Proven track record of building performant, data-driven applications from GPU-accelerated pipelines to production automated testing.

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## EDUCATION

**MASARYK UNIVERSITY** | *BSc Informatics — 4 semesters completed*   *Sep 2024 – Present*

**Brno, Czechia**

- Academic standing: 95th percentile of cohort.
- Relevant coursework: Machine Learning, Statistics, Formal Languages, Modelling & Simulations.

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## EXPERIENCE

**CHYRONHEGO CZECH S.R.O.**   *Brno, Czechia*

**Software QA & Automation Engineer (Intern)**   *Nov 2024 – Dec 2025*

- Engineered Python automated testing infrastructure for high-availability systems.
- Authored and integrated 1,000+ test cases across replacing manual regression workflows.
- Reviewed 100+ pull requests and proposed code improvements adopted into production.

**MASARYK UNIVERSITY**   *Brno, Czechia*

**Teaching Assistant**   *Sep 2025 – Present*

- Instruct weekly seminars in Programming, Algorithms, and Intro to AI for 20+ students.
- Review 100+ submissions weekly, coaching students on maintainable software practices.

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## SELECTED PROJECTS

**CUDA IMAGE ENHANCEMENT** | *GPU Engineer — C++ / CUDA*   *Mar – May 2026*

- Developed a GPU-accelerated electron-microscopy image pipeline (25+ FPS) with TESCAN.
- Optimized CUDA kernels (shared memory, coalescing) for complex denoising and deconvolution.
- Built automated validation workflows to guarantee numerical correctness and reproducibility.

**TEARZ** | *Project Lead — ML / Computer Vision*   *Apr 2026*

- Led team to build a biomedical ML classification pipeline, achieving a 93% F1 score.
- Engineered resilient preprocessing for noisy tear microscopy images, extracting 300+ features.
- Benchmarked diverse architectures, from classical feature extraction to CNN ensembles.

**STOCKMATICS** | *ML Engineer — Python / NLP*   *Mar 2025*

- Built a financial market analytics platform processing unstructured text and market data.
- Designed NLP data pipelines to analyze financial news and estimate market sentiment.
- Implemented transformer-based models for cross-source consensus and predictive analytics.

- Engineered a 2D autonomous driving simulation with real-time visualization and benchmarking.
- Implemented a genetic algorithm training pipeline, replacing gradient descent with fitness-based selection to evolve agent behavior.

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**SKILLS**

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**Programming** Python, C++, C, TypeScript, SQL

**ML & Data Science** PyTorch, OpenCV, scikit-learn, Pandas, NLP, Computer Vision

**Systems & Infrastructure** Linux, Docker, CI/CD, REST/gRPC APIs, PostgreSQL