Mark Volovoi

Computer Science Student, Software Developer

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Education

2024–2027 **B.S., Computer Science,** *Georgia Institute of Technology* *Atlanta, GA*

Expected December 2026. Concentrations in Theory and Media. GPA 3.82/4.0.

2022–2023 **B.S., Computer Science,** *Georgia State University* *Atlanta, GA*

Transferred after one year. GPA 4.1/4.3.

Notable Coursework Number Theory, Automata and Complexity, Advanced Algorithms, Procedural Content Generation, GPU Hardware and Software Design, Computational Linguistics.

Manuscripts

Under review **"Uncovering the Underlying Factors of Trust in AI Systems"**

K. Lin, S. Pedron, M. Volovoi, H. Oh, M. Chang, Z. Zwald, R. Kennedy, C. Xiong. Submitted to the 2027 ACM Conference on Fairness, Accountability, and Transparency.

Research experience

2022– **ML Researcher,** *Numerical Technology Company LLC, UT Arlington* *Remote & Dallas, TX*

- Led development of novel transformer-based techniques for improving tomographic images.
- Leveraged state-of-the-art simulation techniques to produce synthetic data for training that transfers to real samples well.
- Implemented optimizations across all stages of the workflow to make scaling of developed system viable.

2025– **Researcher,** *VisualiXiong Lab in Human Computing Interaction @ Georgia Tech* *Atlanta, GA*

- Assisted in study design and analysis of survey results for various in-progress papers.
- Developed application interfaces for study related datasets.

Other experience

2023– **Software Engineer,** *Business for Ukraine* *Remote*

Assisted in analysis of shipping data and full-stack development of a tracker for Russian commercial logistics following the Russo-Ukrainian war.

2019– **Tutor,** *Various* *Remote*

Tutored MBA students, college students, and high schoolers for various Mathematics and Computer Science courses in a professional capacity.

Skills

Programming CUDA, Python (PyTorch, spaCy, pandas), JAX, Rust, C, C++, Javascript, Tailwind, SolidJS, Mathematica, Matlab, Git, LaTeX