Shane Woloszyn

(207) 604-6787 | woloszyn.shane@gmail.com | linkedin.com/in/shanewoloszyn | shanewoloszyn.dev

Education

Purdue University West Lafayette, IN

Bachelor of Science in Computer Science and Economics *Aug. 2025 – May 2028*

- **Activities:** John Martinson Honors College • BuildPurdue • Purdue Magnetics Lab • Sigma Alpha Epsilon – Recruitment Chair • Certificate in Entrepreneurship and Innovation
- **Coursework:** Discrete Math, Programming in C, Linear Algebra, OOP, Computer Architecture, Data Structures & Algorithms, Multivariate Calculus

Experience

Software Engineering Intern May 2026 – Present

Liberty Mutual Insurance Group *Portsmouth, NH*

- Contributing to Twilio Flex contact center platform supporting 20k+ concurrent agents across call handling, compliance workflows, and analytics
- Building backend logic and TypeScript/React UI for an FCRA disclosure system handling 4% of eligible calls at a 10M+ monthly call center
- Collaborating with senior engineers in an Agile environment, participating in code review and sprint planning across a cross-functional team

Co-Founder and Lead Developer Dec. 2025 – Present

Liora *West Lafayette, IN*

- Founded and led engineering for a hotel management platform; owned architecture, hiring, and product direction from day one
- Built initial product in Java with Spark and Twilio, shipping prototypes for customer demos within the first month; selected for VentureX accelerator with $5k funding

Independent Researcher June 2024 – Feb. 2025

University of New England *Biddeford, ME*

- Designed a CGAN in Python/PyTorch to generate synthetic chest X-ray images for medical education; validated outputs against ground-truth CT data
- Presented findings at the Summer Undergraduate Research Symposium under Dr. Sylvain Jaume

Projects

C++ Limit Order Book Matching Engine | *C++, pybind11, pytest, GitHub*

- Single-threaded engine hitting 2.43M orders/sec at p50 300ns; price-time priority matching, partial fills, and IOC/FOK/Market order types
- O(1) cancellation via hashmap-iterator locator; exposed to Python via pybind11 and validated with a 29-test pytest suite

Crypto Arbitrage Trading Dashboard | *Python, Streamlit, CCXT*

- Real-time arbitrage detector pulling live order book data from 5+ exchanges via CCXT and flagging fee-aware profit opportunities
- Backtested strategies across thousands of simulated paper trades, tracking cumulative and per-trade returns

File Loading Operating System | *C, x86 Assembly, Git*

- Built a bootloader and kernel supporting file read/write on a simulated RAM disk, with VGA text output and PS/2 keyboard input via direct hardware port I/O
- Implemented real-to-protected mode transition on x86, including GDT setup and segment register configuration

Technical Skills

Languages: Python, Java, C, C++, TypeScript, JavaScript, x86 Assembly
Frameworks & Tools: React, PyTorch, NumPy, Unity, Spark, Git, Unix/Linux, Twilio, REST APIs
Concepts: Machine learning, distributed systems, object-oriented design, Agile/Scrum, data analytics, algorithmic trading