

# Will Krzastek

📞 908-566-6578 | ✉️ wkrzaste@nd.edu | 🌐 willkrzastek.com | 🔗 LinkedIn | 🐙 GitHub

## EDUCATION

**University of Notre Dame** | Notre Dame, IN

Expected: May 2027

*Bachelor of Science in Computer Engineering*

*GPA: 3.87 Major | 3.66 Cumulative*

- **Coursework:** Data Structures, Discrete Math (TA), Logic Design, Systems Programming, Embedded Systems
- **Activities:** Notre Dame Rugby Team, Notre Dame Rocketry (**NASA 2024 USLI Winner**), Quant Club

**University of Notre Dame, London Global Gateway** | London, UK

June – August 2024

## EXPERIENCE

**Bausch + Lomb**

Bridgewater, NJ

*Software Engineering Intern – Business Transformation*

June 2025 – July 2025

- Built automated Python pipelines that extract contract data from the Evisort API to create Power BI dashboards for 1,000+ monthly contracts, enabling legal team to reduce bottlenecks and identify workflow optimizations
- Developed automated research system integrating 5+ APIs (PubMed, ClinicalTrials.gov) to identify relevant ophthalmology breakthroughs, and create a weekly newsletter for 20+ R&D researchers
- Implemented real-time customer analytics system monitoring 10,000+ order behaviors to generate automated sales alerts when engagement metrics declined

**Drone Response**

Notre Dame, IN

*Autonomous Systems Researcher*

January 2025 – May 2025

- Designed drone-based system to deliver AEDs to first responders with a winch and DC motor mechanism
- Implemented servo-actuated latch for defibrillator release, operated via dual-channel PWM remote control

**University of Notre Dame**

Notre Dame, IN

*Discrete Math Teaching Assistant*

August 2024 – December 2024

- Held weekly office hours and recitations for 70+ students, answering questions and re-teaching material
- Graded weekly problem sets and exams, providing feedback on set theory, number theory & graph theory proofs

## PROJECTS

**Choose Your Hooper** | *React, Node.js, MongoDB, AWS*

- Developed full-stack fantasy basketball web app (React/Node.js/MongoDB) serving 2,500+ active users with player rankings, trade calculator, and interactive game features
- Built comparative ranking system where users rank 3 similarly-valued players, triggering real-time algorithm updates that recalculate and display new league-wide rankings

**Crypto Guardian** | *Next.js, TypeScript, Python, Flask*

- Built full-stack crypto safety assessment tool calculating risk scores (0-100) from token vesting schedules, liquidity metrics, and developer activity data
- Deployed predictive models (LSTM, ARIMA, Prophet) via Flask API to forecast price trends
- Created interactive data visualizations for exploring historical trends and safety metrics

**Minitorch** | *Python, CUDA, Deep Learning*

- Implemented deep learning library with autodifferentiation, backpropagation, and custom tensor operations
- Reduced training time by 85% through CUDA acceleration and parallel processing optimizations
- Built CNNs, LSTMs, and ResNet architectures with matrix operations and gradient optimization

## TECHNICAL SKILLS

**Languages:** Python, C/C++, JavaScript, TypeScript, SQL, MATLAB, Bash/Shell

**Frameworks:** React, Next.js, Node.js, Express.js, Flask, PyTorch, TensorFlow, Keras, Pandas, NumPy

**Tools:** Git, Docker, MongoDB, AWS, Unix/Linux, CUDA, Arduino, Raspberry Pi, Streamlit

**Interests:** Rugby, Manchester United & New York sports, Web3, Embedded Systems & IoT, Space Exploration