

Alexander E. Ursu

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EDUCATION

University of Illinois at Urbana-Champaign

Champaign, IL

Bachelor of Science in Physics and Computer Science + Mathematics | GPA: 3.64

Aug. 2021 – May. 2025

- **Core courses:** Data Structures, Systems Programming, Numerical Analysis, Algorithms, Computer Security, Calculus, Linear Algebra, Differential Equations, Statistics, Quantum Information, etc.

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, C, JavaScript

Tools: React, Node.js, SQL, AWS (EC2, S3, Lambda), Claude Code

EXPERIENCES

Stealth Startup

San Francisco, California

Research And Development Operator

January 2026 – June 2026

- Operate and calibrate robotic systems to generate structured training data supporting machine learning model development
- Coordinate data collection tasks across multiple concurrent initiatives in a fast-paced, early-stage R&D environment

Assured Information Security

Remote

Software Engineer Intern

February. 2025 – September. 2025

- Designed and implemented simulation pipelines in Python to analyze large language model (LLM) behavior, interpretability, and reliability across real-world scenarios
- Developed and evaluated vision-language models integrating visual perception with natural language understanding
- Applied data structures, algorithms, and software engineering principles to build robust, production-level systems for mission critical applications
- Planned, developed, and tested software in collaboration with cross-functional teams on military-grade development projects

Parus AI (Webley System Inc.)

Chicago, IL

Software Development Intern

July. 2022 – Sep. 2022

- Developed Bash and Python scripts to automate the renewal process for SSL certificate renewal across multiple servers reducing manual workload and eliminating potential downtime risks due to expired certificates
- Utilized AWS Web Services (EC2, S3, Lambda) to enhance backend functionality and support scalable solutions within Parus's unified communications platform
- Integrated APIs for real-time data processing, ensuring swift data accessibility and improved performance, which enhanced user experience across voice-driven applications

Institute of Modeling in Business

Tirana, Albania

Web Development Intern

May. 2022 – July. 2022

- Developed and enhanced dynamic front-end components using HTML, CSS, and JavaScript to improve user experience and interface responsiveness for IMB's financial and accounting software suite "Kontabiliteti Alpha"
- Implemented server-side methods using Java and Node.js to support data exchange and back-end functionality for financial accounting applications, optimizing processing time, also improving data integrity

PROJECTS & RESEARCH

Physics Department, University of Illinois at Urbana-Champaign

Champaign, IL

Research Assistant

June. 2024 – Dec. 2024

- Programmed data collecting, preparation and analysis tools in Python and LabView, automating experiments for ferroelectric material experiments analysis
- Implemented imaging system by reading and capturing image output from microscope camera using OpenCV library in **Python**
- Collaborated with vendor engineers to implement automation with the MK2000 temperature controller and integrated it with imaging system to automate temperature dependent data collection

Various Personal Projects

- Worked on a variety of personal projects which can be found at ursumajor.com/projects
- Projects include a prototype recipe social media application, multiple board game implementations, a tool for annotating pdfs, and a Mod and view tool for a popular video game
- Languages and tools involved include Python, Java, Javascript, React, Node.js, Postgres, AWS S3, and Tkinter