Elliot Sherman

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EDUCATION

University of Illinois Urbana-Champaign   **December 2025**
Masters of Computer Science   GPA: 3.6/4.0
- Relevant Coursework: Database Systems, Cloud Networking, Cloud Computing Applications, Software Engineering

Bachelor of Science in Engineering Physics   **December 2024**
Minor in Computer Science   GPA: 3.3/4.0
- Relevant Coursework: Quantum Physics, Thermal Physics, Electricity and Magnetism, Discrete Structures, Numerical Methods, Numerical Analysis, Data Structures and Algorithms, Machine Learning

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TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, JavaScript, CSS, HTML
Libraries: Matplotlib, NumPy, Pandas, Plotly, Tkinter
Software: Autodesk Inventor, KiCad, Revit, AWS, Git

PROFESSIONAL EXPERIENCE

Northrop Grumman   **Rolling Meadows, IL**
Systems Engineer Intern   June 2025 – August 2025
- Collaborated on refining AFSIM scenario code, supporting more flexible simulation development.
- Developed reusable Python framework for comparative visualization of AFSIM simulation data across various treatments. Figures generated provide valuable insights for stakeholders to evaluate mission impact caused by tested variables.
- Designed and implemented a user-friendly GUI for graph creation, facilitating access and interaction with simulation results.

Center For Plasma Material Interactions   **Champaign, IL**
Research Assistant   August 2023 – May 2025
- Worked with graduate researchers to develop liquid lithium plasma facing components (PFCs) as part of a collaboration with Tokamak Energy.
- Wrote a chemical reaction network simulation within the MOOSE framework to predict the plasma and radical density and species composition of a Hydrogen plasma.
- Applied the results to a plasma source at UIUC, so that the hydrogen flux into an open surface lithium PFC could be predicted.
- Performed a literature review to validate the simulation data based on published results.
- Designed, programmed, and implemented a system to control a stepper motor via an Arduino Nano, enabling computer-based movement of a metal stage along the vertical axis.

Center For Plasma Material Interactions – Illinois Plasma Institute   **Champaign, IL**
Research Assistant   August 2022 – May 2023
- Conducted experiments using laser ablated Sn crystals to investigate extreme ultraviolet light production used in semiconductor device fabrication.
- Modified composition of Sn crystals to increase maximum voltage output from light.
- Altered vacuum system using rough and turbo pumps to test EUV light at different pressure conditions.
- Developed Electrical Circuit setup with laser.
- Designed new parts to be used in the setup using Autodesk Inventor.
- Created graphs using Matplotlib in Python to better compare oscilloscope data.

PROJECTS

Spotify Skit Skipper – *JavaScript, HTML, CSS*
- Developed a web app that automatically skips skits at the end of songs when played on Spotify, using the Spotify API.

Settle America Strategy Game – *Python, JavaScript, HTML, CSS, SQLAlchemy*
- Designed and created a full stack web game with the fetch API that stores game data in an SQLAlchemy database.

Sudoku Solver – *Java*
- Created a GUI in IntelliJ using Swing that lets the user play sudoku or input custom sudoku puzzles to be solved.
- Solves any 9x9 sudoku using recursion instantly, or slowly so the user can watch it be solved.
- Sudoku generator randomly generates one of six sextillion possible boards with three levels of difficulty: easy, medium, or hard.

Wave Height Informer – *Python*
- Developed a web scraping program that triggers an alarm when lake wave heights are suitable for body surfing.

WORK EXPERIENCE

City of Evanston   **Evanston, IL**
Lakefront Supervisor   May 2023 – August 2023
- Trained 57 new lifeguards to be able to recognize and respond to emergencies, as well as to understand and enforce lakefront policy.
- Managed daily logistics of over 100 employees and seven beaches.

INTERESTS

Fantasy Football, 90s Hip-Hop, Camping, Fitness, The Beach