

Lewin Elep

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EDUCATION

B.S. Computer Science, Minor in Business

Arizona State University, Ira A Fulton Schools of Engineering & W.P Carey School of Business - Tempe, AZ

May 2026

3.30 GPA

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Object-Oriented Programming, Software Engineering, Distributed Systems, Information Assurance, Computer Organization & Assembly, Theoretical Comp. Sci

TECHNICAL SKILLS

Programming Languages: Python 3.13, C++17, Java, Javascript (Node.js), HTML5/CSS3

Frameworks & Tools: Git, GitHub, Flask, Arduino, VS Code

Platforms: Windows, MacOS, Linux/Unix

CERTIFICATIONS

AWS Certified Cloud Practitioner (Expected June 2025)

RELEVANT EXPERIENCE

Sun Devil Satellite Lab, AZ: Software Team

Jan 2024 – Present

- Sole Developer on Helmholtz cage sub-project to test magnetometer and IMU accuracy under controlled magnetic fields
- Programmed with Arduino using Adafruit libraries to integrate LIS3MDL and ICM20948 sensors
- Exposure to LoRa-based telemetry protocols used in satellite data transmission

Tutor.com: C++ Tutor

July 2024 – Sept 2024

- Provided one-on-one tutoring to students in C++ fundamentals and object-oriented programming
- Helped students debug code, prep for exams, and solve algorithmic challenges
- Tailored support to a range of academic levels and project types

PROJECTS

Login Abuse Detection and Defense Tool, *Personal Project*

Summer 2025

- Built a Dockerized Flask-based microservice system exposing a RESTful API to detect and block login abuse via behavioral heuristics and geolocation analysis
- Developed a decoupled React.js (Vite) front end with live Chart.js graphs, real-time login feeds, and an admin Settings panel to adjust defense thresholds and attack parameters
- Wrote Python-based attack simulators (normal/brute/geohop/credstuff), spawning worker threads to flood the API and test defensive logic
- Automated end-to-end CI/CD via GitHub Actions: pytest unit tests + secure Docker image build/push on every PR to Docker Hub
- Deployed production-ready containers to Render.com (auto-deploy on GitHub push) featuring a live, publicly accessible demo URL

Node-JS Chatbot, *Personal Project*

Fall 2024

- Developed a ChatGPT-powered chatbot using Node.js and Express.js with real-time browser interaction
- Integrated OpenAI's GPT-3.5-turbo API using secure environment variable handling (.env)
- Implemented backend logic for prompt handling, API requests, and asynchronous response handling per session

Custom Programming Language Interpreter, *Class Project*

Fall 2024

- Developed a full interpreter in C++ for a custom language with variables, arithmetic, conditionals, loops (FOR, WHILE), and SWITCH-case logic
- Implemented a recursive descent parser and linked control flow graph using dynamically allocated InstructionNode structures
- Simulated memory, input/output streams, and execution flow, mimicking a real runtime engine
- Handled instruction sequencing, conditional jumps, nested statements, and error-resilient parsing logic

ACTIVITIES & EXTRACURRICULARS

ASU Venture Devils Finalist	Dec 2022 – April 2023
Robotics Software Team	Sept 2018 – May 2022
Tacoma Food Bank	Sept 2018 – May 2022
Nativity House	Sept 2018 – May 2022