ALEXANDER PELUSO

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OBJECTIVE

Recent Computer Science graduate with experience in full-stack development, web scraping, and systems programming. Seeking a software engineering or data engineering role where I can apply my skills in building tools that deliver real-world impact.

EDUCATION

University of Delaware *Graduated May 2025*

Bachelor of Science in Computer Science — Systems and Networks Concentration

Relevant Coursework: Software Engineering, Operating Systems, Computer Networks, Cybersecurity, Databases, Compiler Design, Machine Learning, Game Design, Parallel Computing

EXPERIENCE

Hydrogen Workforce Scraper – Senior Design Project, University of Delaware *Sep 2024 – May 2025*

Collaborated with EPRI to build a scalable, modular scraping pipeline identifying hydrogen energy related university courses across the U.S. — *Repo: github.com/IsaacWeber1/final_results*

- Designed a full ETL pipeline using Scrapy, Playwright, and Python to scrape, filter, and score academic course data

- Scraped and processed data from over 50 universities, with 92% coverage of HTML-based catalogs

- Created a keyword-scoring system and data processing tools to support interactive educational planning tools

- Produced structured outputs (CSV, metrics) for downstream use by researchers, employers, and students

- Contributed to PDF parsing, automated JavaScript interaction, and pipeline command tools using Makefiles

PROJECTS

Custom UNIX Shell (C) *Spring 2023*

Built a lightweight UNIX shell from scratch featuring command execution, piping, redirection, and memory leak detection using Valgrind. — *Repo: github.com/apeluso03/Custom-Shell-Project*

Custom Language Compiler (TypeScript) *Spring 2024*

Developed a compiler for a custom grammar-based language targeting WebAssembly and RISC-V. Implemented parsing, type-checking, and code generation phases. — *Repo: github.com/apeluso03/Compiler-Project*

For additional projects: github.com/apeluso03

ACTIVITIES

Production Team Member, UD Esports *Sep 2023 – May 2025*

Operated live Twitch stream productions using OBS, Stream Deck, and GOXLR. Developed real-time overlays and camera layouts to enhance viewer experience.

Awarded *Producer of the Year (2024)* for outstanding performance and leadership in stream production.

SKILLS

Programming Languages: C, C++, C#, Java, Python, JavaScript, TypeScript, HTML/CSS, SQL

Tools/Technologies: Git, VS Code, Unity, React, Oracle DB, Virtual Machines

Concepts: Agile Development, Debugging, Communication, Problem Solving, Version Control