

Alex Tirador

☎ 240-906-9755 — ✉ alextirador512@gmail.com — 🔗 linkedin.com/in/alex-tirador — 🌐 github.com/waahhoo

Skills

Collaboration Git, GitHub, GitLab

Languages Ocaml, Rust, C, Java, Svelte

Skills WSL, Visual Studio Code, Wireshark

Operating Systems Kali Linux, Ubuntu, Windows

Microsoft Office Excel, Teams, Outlook, Word

Unit Testing Ocaml OUnit, Java JUnit, Docker

Experience

CACI International (Reston, VA)

May 2024 – Aug 2025

Cyber Eginering Intern

Year 1: ResProxy Service

- Created a frontend webservice for users to access our residential proxy
- Written in the latest version of Svelte, making use of cutting-edge framework capabilities
- Used technologies like Three.js and Geo APIs to place markers on a 3D globe signaling where the connection is
- Collaborated with backend team to provide a fully functional service, allowing real users to connect to our routers

Year 2: AI Netmap

- Created the frontend for a proprietary web service called AI Netmap
- Functionality includes chat service to enable users to interact with Llama 4 model on backend
- Users can upload files that the AI will then take and map in an interactive graph page along with network details
- Critiqued and praised by real professional Cyber Threat Hunters to better accommodate their needs

Education

University of Maryland, College Park

Bachelor of Science in Computer Science

Senior Standing (Fall 2022 - Fall 2026)

Clubs & Extracurriculars

Rowing, Pickleball, Board Games

Astronomy & Astrophotography

Courses

Computer Algorithms Search, Sort, Graph Theory

Multiple Languages Ocaml, Rust, CFG, OpSem

Web Development HTML, CSS, Javascript

Calculus II Integrals, Series

Computing Systems C Programming, Assembly, Malloc

Java Programming OOP, Java, Data Structures

Discrete Math Set Theory, Logical Proofs

Lin Alg Vectors & Matrices

Projects

Rust Garbage Collector

May 2025 – Present

- Written in the Rust programming language
- Implemented real world garbage collection algorithms
- Reference Counting algorithm, Mark and Sweep algorithm, Stop and Copy Algorithm
- Code is private but present on my GitHub, email for inquiries about specifics on the code

SmallC Interpreter

Apr 2025 – Present

- Written using Ocaml, a popular, complex functional programming language
- Works the same way as modern programming language interpreters, but for SmallC
- Used string Lexing, token Parsing into an Abstract Syntax tree, and then Evaluating optimally
- Code is private but present on my GitHub, email for inquiries about specifics on the code

C Hashmap API

Mar 2024 – Present

- Used C to implement a fully functional C hashmap
- Hashmap has $O(1)$ operations for get, put, hashcode, etc.
- Use of key concepts like manual memory allocation, pointers, and heap management
- Code is private but present on my GitHub, email for inquiries about specifics on the code

Portfolio Website

Aug 2024 – Present

- Used Svelte, Tailwind, and Shadcn-svelte to create a personal website
- Website built and deployed using Vite and GitHub-Pages
- Showcases some of my projects, hobbies, and what I've learned for frontend development
- Code is public and present on my GitHub!