Oghenevwogaga Ebresafe

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Education

University of Waterloo   Jan. 2024 – Jan. 2026
MS, Computer Science

Specializing in Programming Languages

Covenant University   Aug. 2017 – Oct. 2021
BS, Computer Science   *4.81/5.0*

Experience

Tweag, Programming Languages and Compilers Group   June 2022 – June 2023
Software Engineer   *Paris, France*
- Contributed to the design and implementation of Nickel.
- Contributed to the typechecker, abstract machine, and various LSP features

University of Waterloo, Programming Languages Group   Janaury 2024 – Present
Research Assistant   *Waterloo, ON*
- Developing a proof language for extensible certified compilers.
- Under guidance of Yizhou Zhang, Assistant Professor, University of Waterloo

University of Waterloo, David R. Cheriton School of Computer Science   Janaury 2024 – Present
Teaching Assistant   *Waterloo, ON*
- Elementary Algorithm Design and Data Abstraction (CS 136)

Independent Experience
Software Engineer
- Contributed to the OCaml standard library for the OCaml 4.13 release.
- Contributed to the F# compiler.

Selected Projects

Programming language compiler and interpreter | *OCaml, JavaScript*   July 2021
- I took part in research to develop an educational programming language with effect handlers for my Bachelor's thesis.

Numerical Analysis Library | *OCaml*   April 2021
- I developed a numerical analysis library which had an embedded DSL and evaluator for extensibility.

Linear Algebra Library | *.NET Core, C#, Visual Studio*   July 2019
- I developed a linear algebra library which solved problems using symbolic manipulation of terms.

Research Interests

I am interested in all aspects about the design and implementation of programming languages. I am also interested in applying programming language techniques to other areas (e.g machine learning, computer architecture).

Technical Skills

- Programming Skills: C++, Rust, OCaml, Coq, Haskell
- Seasoned functional programmer with experience in Haskell & OCaml
- Experienced with systems programming in C++ & Rust
- Skilled in programming language design and implementation
- Deep understanding of programming language theory and compilers
- System administration and DevOps with Nix/NixOS