

Objective

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Seeking a position working on the implementation of a compiler, interpreter, or tooling to verify the correctness and safety of software.}

Education

2019 – 2021 **M.S. Computer Science**, *Stevens Institute of Technology*, Hoboken, NJ.

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2016 – 2020 **B.S. Computer Science**, *Stevens Institute of Technology*, Hoboken, NJ.

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○ GPA – 3.79, Dean's List since Fall 2016.

○ Member of Upsilon Pi Epsilon: International Honor Society for the Computing and Information Disciplines

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Work Experience

5/2018 – 8/2018 **Software Development Intern**, *Unisys*, Blue Bell, PA.

5/2019 – 8/2019 {

○ Assisted in developing a chatbot to automate common IT helpdesk tasks.

○ Worked on a telemetry system for virtual machines to send system information to monitoring servers.

○ Developed a tool for parsing changelogs written as Markdown files and converting them to JSON objects in order to generate release notes.

○ Used Agile practices, such as regular Scrum meetings and used Visual Studio Team Services to track tasks, features, bugs and releases.

○ Practiced Test Driven Development by using tests to verify correctness and writing tests before code.

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1/2019 – 5/2019 {, T, e, a.

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ing Assistant, *Programming Languages*{Stevens Institute of Technology}{Hoboken, NJ}{}

○ Assisted in teaching students about the fundamentals of implementing a programming language, such as the lambda calculus, interpreters, manipulating abstract syntax trees, and typing rules.

○ Aided students in implementing several interpreters and a type checker in OCaml.

○ Helped the professor in developing assignments to teach different aspects of the language, as well as extend existing components such as lexer and parser.

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8/2018 – 12/2018 {, T, e, a.

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ing Assistant, *Automata & Computation*{Stevens Institute of Technology}{Hoboken, NJ}{}

○ Aided in teaching students about important theoretical computer science concepts, such as finite state machines, grammars, and computational complexity.

○ Held weekly office hours and periodic reviews.

○ Graded and designed assignments.

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Relevant Course Work

Spring 2019 **Formal Modeling & Analysis**, *Stevens Institute of Technology*, Hoboken, NJ.

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○ Learned how to use abstractions to design and formally verify software.

- Used verification tools and languages such as Alloy, Dafny, and Proverif.
- Formally verified several algorithms using Liquid Haskell, an extension to Haskell which uses refinement types to place constraints on values to use the type system as a means of verification.

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Spring 2018 **Type Systems for Programming Languages**, *Stevens Institute of Technology*, Hoboken, NJ.

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- Learned the core concepts of designing and implementing a type system.
- Implemented a type inference engine from scratch.
- Researched novel concepts from F#’s type system for final project and presentation.

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Skills

Languages Python, OCaml, C++, C#, Haskell, C, Erlang, F#, Clojure, Common Lisp, Emacs Lisp

Verification Tools Alloy, Liquid Haskell, Dafny