

Carson Radtke

Computer Science Graduate Student at UWM

ADDRESS

120 Crystal Dr
Hartland, WI 53029

- 📍 120 Crystal Dr, Hartland, WI 53029
- 📞 (262)951-8096
- 🌐 <https://nosrac.me>
- ✉ nosrac925@gmail.com
- in [carsonradtke](#)
- 🔄 [carsonRadtke](#)

OBJECTIVE

I am interested in research or internship opportunities involving compiler design and programming language theory. I have industry experience as both a software developer and a compiler engineer as well as leadership experience as a tutor and mentor for engineering students.

WORK EXPERIENCE

Compiler Engineer (July 2021 - Present)
Astronautics

As a compiler engineer at Astronautics, I am responsible for the design and implementation of a domain specific language that compiles to a proprietary instruction set. I built the compiler from the ground up and I implement algorithms for all phases of the compiler (lexer, parser, analyzer, generator) including writing test cases using a hand-build test suite to validate compiler correctness.

Software Development Intern (January 2019 - June 2021)
CaraFlow

As a software development intern at CaraFlow, I was responsible for writing software in a variety of projects. I implemented features and bug fixes for legacy software that runs in over half of hospitals nationwide. I wrote drivers and implemented REST APIs to allow e-paper devices to update their displays wirelessly. I was tasked with architecting and managing the cloud services architecture for multiple projects using Microsoft Azure.

CEAS Tutor (July 2019 - December 2020)
University of Wisconsin, Milwaukee

As a tutor for the College of Engineering and Applied Science at UWM, I worked with students to help them further their understanding in Computer Science, Mathematics, and Physics courses. Classes that I tutor include Algorithms, Calculus, Data Structures, Discrete Mathematics, Programming Languages, Statistics, and Theory of Computation.

EDUCATION

University of Wisconsin, Milwaukee (September 2021 - Present)
Master of Science Computer Science

Specialty: Compiler Design & Programming Language Theory

University of Wisconsin, Milwaukee (September 2018 - May 2021)
Bachelor of Science Computer Science

Electives: Compilers, Computer Graphics, Computer Security, Computer Graphics

University of Wisconsin, Milwaukee (September 2018 - May 2021)
Bachelor of Arts Mathematics

Electives: Abstract Algebra, Chaos Theory, Real Analysis, Statistics

PROJECTS

Personal Website
<https://nosrac.me>
I built my personal website using JavaScript (with JQuery) and Bootstrap and it contains links to various professional social media as well as my resume. It is hosted on an instance of Microsoft Azure's Static Web App.

ModelGen (April 2020 - July 2021)
<https://github.com/carsonRadtke/ModelGen>

I enjoy playing around with public APIs, but creating typed models for responses can be a hassle. To solve this issue, I created a program built on ANTLR to parse JSON output and generate a C# class file containing model definitions for the API response. All that is required for the program is a URL to the endpoint and it outputs the C# model.

NASA APOD Projects
https://github.com/carsonRadtke/nasa_apod_background

I utilized NASA's public Astronomy Photograph of the Day (APOD) API to write a program for both Windows and OS X to change the user's desktop background on a daily basis. I also used the same API to create a Discord bot that displays information about the current photograph of the day.

LANGUAGES

English Native	Spanish Intermediate
Russian Basic	

AWARDS

Magna Cum Laude May 2021
University of Wisconsin, Milwaukee
Awarded to students who achieved a cumulative GPA above 3.65 in their undergraduate studies.