Nick Wanninger

Systems Engineer

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https://github.com/nickwanninger
https://nickw.io

SKILLS

Very well versed in systems languages such as C and C++. Experience with low level systems driver code and assembly. Proficient in Rust, Go, Javascript, Python, Git, x86/x64 Assembly, Lisp (common, clojure), Haskell, Bash

EXPERIENCE

HeXsa Lab Research Group
Undergraduate Researcher

May 2019 - Present

Researching new ways to utilize low latency virtual machines to create new function-level abstractions with low latencies while still maintaining the isolation of a full virtual machine. Submitted a research paper to EuroSys 2021 (pending review)

Valve+Meter Performance Marketing
Software Development Intern

JUNE 2018 - AUGUST 2018

Member of a small team tasked with building a data warehouse for a marketing agency. Designed architecture and wrote code in Go, NodeJS and Docker to connect various APIs (Hubspot, CallRail, ActiveCampaign) to data warehouses. Built custom scripts to pull data nightly, resulting in significant cost and time savings for the analytics team. Built and tested landing pages using Unbounce and WordPress to help improve client marketing performance.

Software Development Consulting

SEPTEMBER 2015 - PRESENT

Modeled and developed websites and systems for a variety of client applications. Analyzed, advised and rehabilitated product and growth strategies for multiple types of organizations. Rebuilt internet presence of multiple local companies, improved website accessibility and SEO rankings, and managed wordpress backends.

The Storybook Factory, LLC - *Lead Dev*

AUGUST 2016 - PRESENT

Coordinated team and development in design, development, and product strategy. Instrumental in construction and design of site, server, UI/UX. Extensively utilized Node JS, AngularJS and the Git Workflow.

EDUCATION

Illinois Institute of Technology, Chicago - *B.S. Computer Science*

AUGUST 2017 - MAY 2021

Relevant Courses: Data Structures and Algorithms, Computer Organization and Assembly Programming. Systems Programming, Operating Systems, Complex Virtual Machines, Algorithms,

SIDE PROJECTS

Chariot Operating System

https://github.com/nickwanninger/chariot

JULY 2019 - PRESENT

Currently hacking away on a toy unix-like operating system in C++ that works on the x86_64 platform. Wrote various low-level hardware drivers and filesystem implementations, demand paging systems, and memory management on many levels.

Cedar Lisp

https://github.com/nickwanninger/cedar

DECEMBER 2018 - PRESENT

Implemented a lisp dialect in C++ with a bytecode compiler and interpreter, experimented with an x86 JIT assembler for the bytecode.

The Geode Programming Language

https://github.com/geode-lang/geode

JUNE 2018 - PRESENT

Implemented an ahead of time compiler for a programming language I designed, implemented and maintained called geode. Created from the ground up in Go, using LLVM, it can link against C code, has incremental compilation, generics, and high level concepts like garbage collection and classes.