Holly Wu

Software engineer with extensive full stack web background, interested in unconventional roles requiring unique solutions.

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Experience (2017 - Present)

Gravity Climate - Software Engineer (Full Stack)

Remote (July 2022 - May 2023)

Go, TypeScript, React, PostgreSQL

- Built both internal and customer-facing features across the stack of a carbon accounting platform
- · Responsible for backend systems involving management and consistency of carbon emission factors
- Developed "self-healing" system to ensure model instances remained up to date as specs evolved

Centene Corporation - Software Engineer (Full Stack)

Arlington, VA (February 2019 - 2022)

JavaScript, TypeScript, Flow, React, MongoDB, Docker

- Built features and technical enhancements as part of the Digital Product Engineering team, tasked with rapid product development on a web portal for health insurance policyholders
- Created tools and performed refactors to reduce technical debt
- Worked with UX and Product teams to provide better end-user experiences for healthcare customers

United States Census Bureau - Civic Digital Fellow

Washington, DC (June - August 2018)

Python (Jupyter Notebook, Pandas, Scrapy, BeautifulSoup), JavaScript (React)

- Selective (35 of 850) civic tech fellowship through Coding it Forward, working in the US Census Bureau to improve survey of juvenile residential facilities across the USA
- Implemented a reusable tool in React.js for fast human validation of training data
- Reported and presented work and results to senior leadership, incl. the Director of the Census

Electric Power Engineers - Software Engineer (Full Stack)

Austin, TX (May - August 2017)

Python, Django, SQLite, JavaScript, ArcGIS

- One of two engineers; responsible for leading major refactor of 10K+ lines of legacy JavaScript code
- Developed Django integration and new features for an ArcGIS visualization web app used by power and utility companies across Texas to track usage, grid connectivity, and fleet location

Personal Projects

Ectype (JavaScript, TypeScript)

github.com/d3jawu/ectype (July 2022 - Present)

- In-place language "extension" consisting of a library and static analyzer that work in tandem to bring static typing and type safety to vanilla JavaScript without needing a code generation step
- First-class types as values enable runtime validation of data and flexible handoff of type coverage
- Presented at Strange Loop 2023

Kythera (*Node.is*, *Java/JVM*, *Kotlin*, *Rust*)

github.com/d3jawu/kythera (April 2017 - Dec 2021)

- Design and implementation of a transpiler for a statically typed programming language
- Compiles to JavaScript and features first-class types and bottomless type introspection
- Multiple exploratory implementations in Rust, Java/Kotlin/JVM, and JavaScript/TypeScript
 Nanote (Go, MySQL, React) github.com/d3jawu/nanote (November 2015 November 2018)
- A full-featured note-taking web app built on Markdown and LaTeX with privacy and sharing controls
- Originally created for personal use to address Evernote's shortcomings; used daily until retired

Education

University of Texas at AustinCockrell School of Engineering

August 2014 - December 2018 B.S. Computer Engineering