

David Watson

📍 Pittsburgh, PA 📞 (412) 614-9301 ✉ david@davidwatson.org

Summary

A computer science merit award and a computer programming internship took me on a rocket ship from data centers to labs and studios to startups. 3 traits continue to drive and influence my life's work, defeating wicked problems in healthcare via technology: ambivert, ambivalent, and hypoglycemic. Happiest in roles requiring technical know-how and clinical care-now, with mindful reciprocity between both.

Experience

Freelance 🌐

C++, Python 3, NodeJS, Typescript, Docker/Kubernetes Pittsburgh, PA

- Carnegie Mellon University Senior Member of Technical Staff, ETC
- Caterpillar Tech Consultant (1099) C++/GCC/Linux ZCU-104 PYNQ Terrain Vis.
- Wyvern Tech Consultant (1099) NodeJS, TypeScript, Docker(compose), k8s

Caterpillar 🌐

Software Engineering Specialist Pittsburgh, PA

- Assembled Sensor Storage for Edge Network on Kubernetes using Python 3, Minio, and PostgreSQL with a team of 4 engineers
- Collaborated with senior IT staff of 12 over planning and long-term implications of hyperconverged infrastructure on cloud native storage

Rent Jungle (RainMaker (RealPage)) 🌐

Senior Software Engineer Pittsburgh, PA

- Led weekly retro to 2x better cadence, communication, velocity, and teamwork
- Crafted Scrapy/Tor (python 3) crawler on Django, PostgreSQL, Kubernetes

Wellbridge Health 🌐

VP Product Development Pittsburgh, PA

- Led 4-person interdisciplinary design team through HIPAA-compliant EmberJS SPA MVP designed and delivered in collaboration with MAYA Design
- Developed REST API backend using Python 3/Django, DRF and PostgreSQL serving EmberJS SPA on Aptible with 4-person team

Hire an Esquire (Major, Lindsey, and Africa) 🌐

VP Engineering Pittsburgh, PA

- Led a team of 6 through a lean Python 3 redesign and refactoring of the entire UI/UX from legacy MVP Django system for attorneys and agents
- Reduced daily production firefighting by more than 50% using nimble methods, automated tests, CI/CD, code review, and design review

Forever 🌐

Senior Software Developer Pittsburgh, PA

- Prototyped full-stack front-end (Bootstrap) to back-end (Heroku) cloud proto of idea in 2 weeks on Python 3 before porting MVP Python -> Ruby on Rails
- Enabled the company to move from 0 sales to strong market traction in under a year after releasing 1.0 e-commerce platform finished @ Neo, Columbus, OH

Worldview

Linux

● ● ● ● ● ○

arch, debian, redhat, fedora, ubuntu

MacOS

● ● ● ● ● ○

BSD

Windows

● ● ● ● ○ ○

WSL 2

Containers

Docker, Podman, LXC/LXD

● ● ● ● ● ○

Virtualization

Proxmox, KVM

● ● ● ● ○ ○

Private Cloud

Kubernetes, k3s, minikube

● ● ● ● ● ○

k8s, helm

Public Cloud

AWS, GCP, Azure

● ● ● ● ○ ○

aws, gcp, azure

Databases

MySQL, PostgreSQL, SQLite

● ● ● ● ○ ○

Frameworks (Scaffolding)

Django, Flask

● ● ● ● ○ ○

RoR

Programming Languages

C++

Microsoft VS Code and GCC

● ● ● ● ○ ○

Markup

HTML, CSS, MarkDown (MD)

● ● ● ● ○ ○

Python (2.x and 3.x)

Multi-paradigm

● ● ● ● ○ ○

Ruby

functional

● ● ● ● ○ ○

Shell

bash, fish, zsh

● ● ● ● ○ ○

Experience (continued)

SMAsh - Brainstorm SMS Technologies (Mind Matrix) 🌐

2011 - 2012

Senior Engineer

Pittsburgh, PA

- Wrote conversational text systems (like twilio) in Python/PostgreSQL
- Supported large SMS text campaigns from Pittsburgh Steelers to Miller-Coors

Wellspring Worldwide 🌐

2010-2011

Software Development Manager

Pittsburgh, PA

- Pioneered SRE culture from legacy data center to SaaS VMWare CI/CD modernization with a team of 12 Engineers
- Built DevOps systems using Capistrano (Ruby), Mechanize (Python), and Selenium with dev team of 2 Sys Ops Engineers and 4 Test Ops Engineers

Applied Perception (Foster Miller (Qinetiq)) 🌐

2008-2009

Project Engineer

Pittsburgh, PA

- Visualized XML sonar data in python backend/C++ GUI application on Windows
- Ported Microsoft C#.net Windows GUI to C++/Qt/Linux for OCU deployment

NOMOS (North American Scientific, Best Medical) 🌐

2006-2007

UI Software Engineer

Pittsburgh, PA

- Coded C++ QA tests and maintained Perl code review system to CORVUS FDA-regulated radiation oncology product with dev team of 12 and QA team of 4
- Prototyped wireframes and rendered storyboards in C++/Python2/Qt for adaptive 4D treatment planning with team of 4

MAYA Design (BCG) 🌐

2004-2006

Software Design Engineer

Pittsburgh, PA

- Built python REST backends emitting JSON for consumption by AJAX frontends on dev team of 4 building [dhs.net](#), A+ Schools, 3RC websites
- Demoed GUI floor-plan Zigbee wireless lighting designer IoT PoC in C#.net/COM/Visio on Windows for Lutron/Phillips 1 week from designer sketch

Cobind 🌐

2003-2004

Cofounder

Pittsburgh, PA

- Collaborated on Linux Tools startup with cofounder and consultant where we borrowed cobind concept signifying binding an app with its OS
- Received worldwide press from USA to Norway to Australia around Linux products after winning Idea Foundry Fellowship; wrote python2 ops code

Passion

Reading, Writing, and Running

My dream is to run coast-to-coast authoring several books from Boston to Seattle.

Education

Duquesne University 🌐

BS/BA

Business, Music School Dropout

Core Credits: Computer Science, Systems Analysis, Technical Writing

Awards

Top 100 Award

[Infoworld](#)

MAYAns built AJAX, web components, and mapping APIs. Later, individuals launched a book called [realizing empathy](#), a [music school](#), and more with help from like-minded MAYAns.

Transformation Fellowship

[Idea Foundry](#)

[Open Source is a Social Contract](#)

[My First FOSS Contribution](#)

[My Pull Request on Github](#)

[My Reactive Resume/Docker](#)

[My Github Profile](#)

[My LinkedIn Profile](#)

[Books -> Beliefs -> Values](#)

[Crystal Clear \(Cockburn\)](#)

[Lean Software \(Ries\)](#)

[HC Sensemaking \(Pirulli\)](#)

[Literate Programming \(Knuth\)](#)

[Peopleware \(Demarco, Lister\)](#)

[Continuing Education](#)

[Git Foundations @ GitHub](#)

[MBSR @ UPMC](#)

[RDBMS @ MIT](#)

[PyCon @ Cleveland](#)

[Code, Portfolio, References](#)

[Available On Request](#)

Software inherited emotional communication from music. Agile starts with personal and grows with social. Logic, grammar, math, music have been among learning's roots since the Greeks. My life's work is a 3 circle Venn diagram of ideas as imaginary signifiers of possible, prototypes as symbolic signifiers of probable, and products as real signifiers of profitable where the intersection around the center is magic.