

David Watson

software=sum(code, data, people) x sum(culture, tools)

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Summary

I help teams go-to-market nimbly by moving ideas from sketch to prototype. As a technical contributor from R&D labs to startups I've seen both sides now, crafting software that shapes complex data through APIs into usable UI/UX between cloud, desktop, and mobile. Shipping complete data products and software services makes software's value proposition clear from funding to launch to acquisition.

Experience

Caterpillar 🌐

2018-2021

Software Engineering Specialist

Pittsburgh, PA

- Assembled Sensor Storage on Kubernetes using Python, Minio, and PostgreSQL with a team of 4 collaborators
- Built terrain visualization software in C++/gcc on Xilinx ZCU-104 using PYNQ with a team of 4 collaborators

Rent Jungle (RainMaker (RealPage)) 🌐

2016-2018

Senior Software Engineer

Pittsburgh, PA

- Led weekly retro resulting in 2x better cadence, velocity, and teamwork
- Crafted crawler using Python, Django, and PostgreSQL on Kubernetes stack

Wellbridge Health 🌐

2015-2016

VP Product Development

Pittsburgh, PA

- Led 4-person interdisciplinary design team through HIPAA-compliant EmberJS SPA MVP designed by MAYA delivered before remote health was common
- Developed REST API using Python/Django, DRF and PostgreSQL serving EmberJS SPA on Aptible with 4-person development team

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

2014

VP Engineering

Pittsburgh, PA

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

Forever 🌐

2013-2014

Senior Software Developer

Pittsburgh, PA

- Prototyped the sketch our designer called, "*flickr for dead people*" in a couple weeks. Our founder said, "*you hit the ball out-of-the-park*".
- Enabled the company to move from 0 sales to strong market traction online via e-commerce platform completed working remote-hybrid with Neo, Columbus

BrainStorm SMS Technologies (Mind Matrix) 🌐

2011-2012

Senior Engineer

Pittsburgh, PA

- Wrote conversational text systems (like twilio) in Python/PostgreSQL

Knowledge and Skills

Linux

● ● ● ● ○

arch, debian, redhat, fedora, ubuntu

MacOS

● ● ● ● ○

monterey, sequoia, BSD

Windows

● ● ● ● ○

11, WSL 2

Containers

Docker, Podman

● ● ● ● ○

Virtualization

Heroku, Proxmox, Aptible

● ● ● ● ○

Private Cloud

Kubernetes, k3s, minikube

● ● ● ● ○

k8s, helm

Public Cloud

AWS, GCP, Azure

● ● ○ ○ ○

aws, gcp, azure

Databases

MySQL, PostgreSQL, SQLite

● ● ● ● ○

Frameworks

Django, Flask, Ruby on Rails

● ● ● ○ ○

RoR

Programming Languages

C++

Microsoft VS Code and GCC

● ● ● ○ ○

Markup

HTML, CSS, MarkDown (MD)

● ● ● ○ ○

Perl

● ○ ○ ○ ○

Python

OO, functional, OOA, OOD

● ● ● ● ○

Ruby

Ruby on Rails (RoR)

● ● ● ○ ○

Shell

bash, fish, zsh

● ● ○ ○ ○

Experience (continued)

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 Cranberry Township, PA

- Visualized XML sonar data in python, consumed by 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 Cranberry Township, PA

- Contributed C++ QA tests and code reviews to CORVUS FDA-regulated radiation oncology product with dev team of 12 and QA team of 4
- Prototyped wireframes and rendered storyboards in C++/Qt for adaptive 4D treatment planning with multidisciplinary 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
- Demoed GUI floorplan wireless lighting designer in C#.net on Windows for Lutron/Phillips 1 week from designer's sketch on interdisciplinary team

Cobind 2003-2004
Founder Pittsburgh, PA

- Collaborated on ideation, vision, and execution of custom Linux Tools startup with my cofounder and our PR consultant
- Received wide press acclaim around custom Linux products after winning Idea Foundry Fellowship and pairing with our PR consultant

Continuing Education

Git Foundations Workshop Github

RDBMS and Internet Application Programming MIT

Python Conference PyCon

Education

Duquesne University BS/BA
Business, Computer Science, Music

Awards

Top 100 Award
[Infoworld](#)

Transformation Fellowship
[Idea Foundry](#)

Open Source & Social

My First Contribution

My Pull Request on Github

My Github Profile

My LinkedIn Profile

Technical Interests

AI - Beyond Dartmouth

Bret Victor's Dynamicland

Emergent Systems Architecture

Volunteering

American Diabetes Assoc.
Board Member
Beaver, PA

American Cancer Society
Driver
Beaver, PA

Books I Believe

Accelerate

Crystal Clear

Interface Culture

Lean Software

Literate Programming

Peopleware

Realizing Empathy

Software Takes Command