

David Watson

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Summary

My work turns formless ideas into solid technology products.

By **making sense of prototypes** together, we arrive at **user interfaces that transcend geometry**. We grow teams to make better products. Conflict to consensus is sensemaking - a care and feeding of teams as a **wormhole from code to culture**.

Leadership is striving daily to be a good peer regardless of role, where teams scale better in pairs to meet platform demands using disposable scaffolding, immutable infrastructure, and well-defined ops. **The best leader is the best peer**.

Shipping data products and software services indicates readiness for funding, launch, and acquisition. Alleviating fears of diminishing returns and regressions by signifying product as production has value, but **maintenance is production**.

Trading user interface limits for user experience magic beyond data is gold.

Experience

Freelance 🌐

2020-2024

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

Caterpillar 🌐

2018-2020

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 Scrapy crawler on Django, PostgreSQL, 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

Worldview

Linux

● ● ● ● ○

arch, debian, redhat, fedora, ubuntu

MacOS

● ● ● ● ○

monterey, sequoia, BSD

Windows

● ● ● ○ ○

11, WSL 2

Containers

Docker, Podman

● ● ● ● ○

Virtualization

Heroku, VMWare

● ● ● ○ ○

Private Cloud

Kubernetes, k3s, minikube

● ● ● ● ○

k8s, helm

Public Cloud

AWS, GCP, Azure

● ● ○ ○ ○

aws, gcp, azure

Databases

MySQL, PostgreSQL, SQLite

● ● ● ○ ○

Frameworks (Scaffolding)

Django, Flask, Ruby on Rails

● ● ● ○ ○

RoR

Programming Languages

C++

Microsoft VS Code and GCC

● ● ● ○ ○

Markup

HTML, CSS, Markdown (MD)

● ● ● ○ ○

Python

OO, functional, OOA, OOD

● ● ● ● ○

Ruby

Ruby on Rails (RoR)

● ● ● ○ ○

Shell

bash, fish, zsh

● ● ○ ○ ○

Experience (continued)

Forever 🌐

Senior Software Developer

2013-2014

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

SMAsh - Brainstorm SMS Technologies (Mind Matrix) 🌐

Senior Engineer

2011 - 2012

Pittsburgh, PA

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

Wellspring Worldwide 🌐

Software Development Manager

2010-2011

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)) 🌐

Project Engineer

2008-2009

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) 🌐

UI Software Engineer

2006-2007

Cranberry Township, PA

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

MAYA Design (BCG) 🌐

Software Design Engineer

2004-2006

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 🌐

Founder

2003-2004

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

Education

Duquesne University 🌐

Business, Computer Science, Music

BS/BA

Awards

Top 100 Award

[Infoworld](#)

The MAYA Design team cobbled together parts predating AJAX, web components, and mapping APIs. They went on to found a...

- [movement](#)
- [music school](#)
- [startup](#)

as teams-of-pairs, coast-to-coast, taming complexity.

Transformation Fellowship

[Idea Foundry](#)

[Open Source is Social](#)

My First FOSS Contribution

My Pull Request on Github

My Reactive Resume/Docker

My Github Profile

My LinkedIn Profile

Knowledge and Beliefs

Accelerate

Crystal Clear

Lean Software

Literate Programming

Peopleware

Realizing Empathy

Continuing Education

Git Foundations Workshop

RDBMS @ MIT

PyCon

References (redacted)

David Bishop

Lou Bojarski

Craig Maier

Bryan Mills

Tom Moertel

Elliott Williams