

**David Watson**

**d@davidwatson.org**

**1314 Arrowood Drive**



**(412) 614-9301**

**Pittsburgh, PA 15243**

My music school experience was preceded by a computer science merit award and followed by a computer programming internship while finishing the vocational BS/BA at night. Wrote commercial software for decades: minimizing data center automation into containers and cloud native infrastructure, programming telerobotics user interfaces, remodeling telehealth systems, and more. A fellowship enabled funding and founding my startup which led to roles ranging from rapid prototyping to automated deployment to subtractive design: sensemaking the pivotal potential of people, product, and process.

## Knowledge and Skills

Platforms	Languages	Databases
Linux MacOS Windows	C/C++ HTML/CSS/JS Python	MySQL Postgres SQLite
Integration (CI)	Deployment (CD)	Frameworks
Jenkins Circle CI GitOps	Docker Kubernetes Proxmox	Django Flask Rails

## Experience (W-2)

### Software Engineering Specialist

[Caterpillar](#)

2018-2020

- Design and deliver innovative infrastructure to support the company's autonomous vehicles
- Collaborated with IT to transform data storage provisioning from data center to cloud to cloud native
- Improved forward progress moving prototype toward shipping product

### Senior Software Developer

[Rent Jungle](#)

2016-2018

- MVP in production challenged growing client demands with unsustainable devops opportunity costs
- Designed crawler data pipeline in Docker/Kubernetes on Mac to AWS Python/Postgres & MySQL
- Managed daily sessions with team to establish cadence, pairs work, and engineering confidence

### VP Product Development

[Wellbridge Health](#)

2015-2016

- MVP supported pilots, but MVP was not market-ready for production deployment
- As CISO, IT Director, and VP Product, deprecated MVP; designed and built behavioral health platform
- Designed and built Django/Postgres API plus Aptible deployment while MAYA completed UX SPA

### Senior Software Developer

[Forever](#)

2013-2014

- Series A startup with concept to provide digital storage for *100 years*
- Prototyped MVP in Python, Flask, Mongo; Wrote production system in Ruby/Rails on Heroku/Postgres
- Forever continues to sell storage product while integrating complementary assets via M&A

### Senior Engineer

[SMaSh](#)

2011-2012

- Juggled customer service & support from Pittsburgh Steelers to Miller Coors plus new development
- Built conversational text interface to track diabetic glycemia in Python/Flask/Postgres, and Heroku
- Worked through a funding shortage and company was eventually acquired by Mind Matrix

**Software Development Manager**      [Wellspring Worldwide](#)      2010-2011

- Wellspring had a million lines of code in its product, but no tests or automation and data center
- Transformed ops from fire-fighting to automated CI/CD pipeline on Capistrano, Mechanize, and Selenium
- Wellspring is still operating independently today after moving from Pittsburgh to Chicago

**Project Engineer**      [Applied Perception](#)      2008-2009

- Applied Perception built nascent robotics for military clients
- Ported C# GUI to Linux [OCU](#) C++/Qt; Coded Python XML sonar parser/viz to bridge C++ GUI to [UUV](#)
- Applied Perception was first acquired by Foster-Miller, then Foster-Miller was acquired by QinetiQ

**UI Software Developer**      [Nomos](#)      2006-2007

- Nomos built radiotherapy treatment planning hardware and software products on Mac OSX
- Wrote C++ QA tests for Corvus radiation oncology product; Prototyped 4D design in C++/Qt
- Nomos was acquired by North American Scientific, then acquired by Best Medical.

**Software Design Engineer**      [MAYA Design](#)      2004-2006

- MAYA was a design studio and technology research lab founded by 3 CMU professors circa 1989
- Built AJAX stack on Linux & Mac Python and NoSQL DB; built predecessor to Hue C#.net for Philips
- MAYA was acquired by BCG and operates today as BCG Platinion

**Co-Founder**      [Cobind](#)      2003-2004

- Conceived, marketed and launched startup to build custom Linux distros online
- Designed, built, and shipped the [Cobind Desktop](#) - PoC of the DIY build tools
- Reached a worldwide audience quickly using free media and our website via word-of-mouth marketing
- Failed fast when we realized that founding delivered more epiphanies and insights than any formal education

## Experience (1099)

**Technical Consultant**      [Caterpillar](#)      2021

- Built and profiled terrain visualization C++ code ported from Intel to Xilinx [ZCU-104](#)

**Technical Consultant**      [TenthRow](#)      2009

- Designed and built [live music experience](#) via streaming to fans worldwide

**Usability Consultant**      [MAYA Design](#)      2008

- Collaborated with MAYA Design on usability of Bayer Diabetes Blood Sugar Monitor

**Technical Consultant**      [Zenit Solutions](#)      2008

- Designed and implemented python system to track movers via [PostGIS](#) and web2py

## Education and Awards

Duquesne      [Bachelor of Science](#)

MIT (CE)      [RDBMS and IAP](#)

InfoWorld

Idea Foundry

[Top 100 Award](#)

[Transformation Fellowship](#)