David Watson

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A computer science merit award and a music scholarship preceded my music school detour before exiting stage left to fulfill the vocational BS, including a programming internship. Professionally, wrote software for decades: minimizing data center automation into cloud native infrastructure, programming telerobotics user interfaces, remodeling telehealth systems from MVP to SaaS, 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 pivot potential of people, product, and process.

Knowledge and Skills

Platforms	Languages	Databases	Containers & VMs
Linux	C/C++	Postgres	Docker
MacOS	HTML/CSS/JS	SQLite	Kubernetes
Windows	Python	Redis	Proxmox

Architecture	Integration (CI)	Deployment (CD)	Frameworks
API	Jenkins	Aptible	Django
GUI	Circle CI	Capistrano	Flask
HCI	GitOps	Shippable	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 legacy date center
- Transformed legacy ops from data center to automated CI/CD test, build, and deployment pipeline
- 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](#)	**InfoWorld**	[Top 100 Award](#)
MIT (CE)	[RDBMS and IAP](#)	**Idea Foundry**	[Transformation Fellowship](#)