David Watson
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Summary

Prototype programmer using R&D experiments to count things that count: shipping productized software.

Objective

Design, develop, and deploy software with small teams joined by aesthetics, methods, and tools.

Skills

Platforms	Languages	Frameworks	Database	Public Cloud
Linux	C/C++	Django	Postgres	AWS
MacOS	HTML/CSS/JS	Flask	SQLite	Azure
Windows	Python	Rails	Redis	GCP

Integration (CI)	Deployment (CD)	Architecture	Private Cloud	Methods
Jenkins	Aptible	API	Docker	Agile
Circle CI	Capistrano	HCI	Kubernetes	Lean
GitOps	Shippable	Cloud Native	Proxmox	Sensemaking

Long-Term Experience

Software Engineering Specialist — Caterpillar — 2018-2020
Designed storage system on Kubernetes; Worked with IT to make provisioning private cloud infrastructure feasible

Senior Software Developer — Rent Jungle — 2016-2018
Coded crawler data pipeline from Docker and Kubernetes on Linux & Mac to AWS in Python with Postgres & MySQL

VP Product Development — Wellbridge Health — 2015-2016
Led product development team from MVP to telehealth sensor system in Python, Flask, Django, Postgres, and Aptible

Senior Software Developer — Forever — 2013-2014
Prototyped MVP in Python, Flask, NoSQL; Ported system to Ruby/Rails/Postgres for production deployment on Heroku

Senior Engineer — SMaSh — 2011-2012
Built conversational text interface to track blood glucose for diabetes patients in Python, Flask, Postgres, and Heroku

Software Development Manager — Wellspring — 2010-2011
Transformed legacy ops from data center to automated CI/CD SaaS deployment cutting daily support to near zero

Project Engineer — Applied Perception — 2008-2009
Ported C#.net GUI to Linux OCU in C++/Qt; Programmed Python XML sonar parser/viz between C++ GUI & HULS

UI Software Engineer — Nomos — 2006-2007
Automated QA tests in C++ for Corvus radiation oncology product; Prototyped adaptive 4D radiotherapy in C++/Qt

Software Design Engineer — MAYA Design — 2004-2006
Developed web stack on Linux & Mac in Python and NoSQL database; built predecessor to Hue in C#.net for Philips

Co-Founder — Cobind — 2003-2004
Won an Idea Foundry Transformation Fellowship; launched DIY Linux Tools startup; built custom Linux distros online

Senior Software Engineer — Management Science Associates — 2000-2003
Created VBA plugin enabling remote product import over SOAP protocol from Microsoft Excel to product database

Principal Member of Technical Staff — CA, Legent, Platinum — 1995-2000
Wrote GUI features (CMS, NMS) in C++ on Windows and OS/2 for Automation Point, Raveler, and Unicenter products

Short-Term Experience

Contract Technical Consultant	Caterpillar	2021
Built and profiled terrain visualization C++ code ported from Intel to XilinxZCU-104		
Senior Member of Technical Staff	Carnegie Mellon	2020
At SEI, collaborated with groups from ATAK, Intel and NREC supporting projects like AI, HCI, and HPC in C++ and Python		
VP Engineering	Hire an Esquire	2014
Led redesign, refactoring, and deployment of ground-up demolition of legacy Python, Django, Postgres web stack		
Senior Software Engineer	PPG	2007
Member of team building and shipping C++ code for Spectrophotometer used in 40,000 body shops		
Contract Technical Consultant	Zenit Solutions	2008
Designed and implemented python reporting system in web2py and postgresql to track movers via PostGIS and web2py		
Contract Technical Consultant	TenthRow	2009
Designed and built TenthRow - a web-based system to deliver alive music experience via streaming to fans worldwide		
Contract Usability Consultant	MAYA Design	2008
Colaborated with MAYA Design human sciences group on Bayer Diabetes Blood Glucose Monitor		

Open Source

Unpaid Individual Technical Contributor	Github Issues Report	2017
Coordinated code and configuration from the team at Rent Jungle/td>		
Unpaid Individual Technical Contributor	PostgREST	2015
Coded the python client to the server I built at Wellbridge Health prototyping the API		
Unpaid Individual Technical Contributor	BodyTrace API	2015
Wrote the BodyTrace scale API, which we used at Wellbridge Health for remote healthcare management		
Unpaid Individual Technical Contributor	Marquee	2003
Contributed the servlet implementation to Marquee XML-RPC library		

Awards

Infoworld Top 100 Award	humanservices.net	2006
humanservices.net		
Idea Foundry Transformation Fellowship	Startup Angel Funding	2003
Cobind		

Quotes From Coworkers 💬

He's smart, dedicated and diligent but...

What impresses me most is his curiosity, critical thinking, and commitment to continued learning. He genuinely cares about the users of systems he's building.

He also has a genuine interest in nurturing and mentoring others to help them achieve their goals.

His sense of business, technology, linux platform knowledge and insights into usability topped with his skills as a top-notch technical author makes him a great team member and collaborator.

What strikes you the most when working with David is his ability to see the bigger technological picture and his painstaking attention to subtle nuances of detail.

Education and Learning

Duquesne University	Bachelor of Science	1991
MIT (Greenspun and Stonebraker)	RDBMS and Internet Programming	2012
Github	Git Foundations Workshop	2012