

David Watson

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Shaped software engineering from prototype design to product development to platform deployment. By automating CI/CD pipelines, my dev & ops teams shipped better product and service more predictably, reliably, and repeatably.

Knowledge and Skills

Platforms	Languages	Databases	Containers & VMs
Linux MacOS Windows	C/C++ HTML/CSS/JS Python	Postgres SQLite Redis	Docker Kubernetes Proxmox
Architecture	Integration (CI)	Deployment (CD)	Frameworks
API HCI LXC/KVM	Jenkins Circle CI GitOps	Aptible Capistrano Shippable	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 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
- Company continues to sell storage product while providing media transformation beyond storage

Senior Engineer

[SMaSh](#)

2011-2012

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

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|---|------------------------------------|-----------|
| Software Development Manager | Wellspring | 2010-2011 |
| <ul style="list-style-type: none"> ▪ Profitable with 1MLOC, but ops was unsustainable given no tests, legacy data center, and no devops ▪ Transformed legacy ops from data center to automated CI/CD SaaS deployment minimizing support ▪ Company is still operating independently today after moving from Pittsburgh to Chicago | | |
| Project Engineer | Applied Perception | 2008-2009 |
| <ul style="list-style-type: none"> ▪ Company built custom robotics from scratch for military clients ▪ Ported C# GUI to Linux OCU in C++/Qt; Coded Python XML sonar parser/viz to bridge C++ GUI WUV ▪ Company was first acquired by Foster-Miller, then Foster-Miller was acquired by Qinetiq | | |
| UI Software Developer | Nomos | 2006-2007 |
| <ul style="list-style-type: none"> ▪ Company built radiotherapy treatment planning products on Mac OSX ▪ Wrote C++ QA tests for Corvus radiation oncology product; Prototyped 4D xyztdesign in C++/Qt ▪ Company was acquired by North American Scientific, then acquired later by Best Medical. | | |
| Software Design Engineer | MAYA Design | 2004-2006 |
| <ul style="list-style-type: none"> ▪ MAYA was a design studio and technology research lab founded by 3 Carnegie Mellon professors ▪ 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 |
| <ul style="list-style-type: none"> ▪ We built Cobind DiY Build Tools: a web-based system to build custom linux distros online ▪ Designed, marketed and launched DiY Linux Tools startup to build custom Linux distros online ▪ Cobind built and shipped the Cobind Desktop - an end-to-end demo of the DiY build toos | | |

Experience (1099)

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|---|---------------------------------|------|
| Technical Consultant | Caterpillar | 2021 |
| <ul style="list-style-type: none"> ▪ Built and profiled terrain visualization C++ code ported from Intel to Xilinx ZCU-104 | | |
| Technical Consultant | TenthRow | 2009 |
| <ul style="list-style-type: none"> ▪ Designed and built a live music experience via streaming to fans worldwide | | |
| Usability Consultant | MAYA Design | 2008 |
| <ul style="list-style-type: none"> ▪ Colaborated with MAYA Design on usability of Bayer Diabetes Blood Sugar Monitor | | |
| Technical Consultant | Zenit Solutions | 2008 |
| <ul style="list-style-type: none"> ▪ Designed and implemented python system to track movers via PostGIS and web2py | | |

Education and Awards

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| Duquesne | Bachelor of Science | Infoworld | Top 100 Award |
| MIT (CE) | RDBMS and IAP | Idea Foundry | Transformation Fellowship |