

# David Watson



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Code was my third language after music. Earned a merit award, dropped out of music school, and finished my formal education. For over a decade, wrote [software](#) from data centers to R&D labs. Founded a startup, funded by a fellowship. Became a lean canary in a coal mine to dozens of startups. Tamed prototype design, product development, and platform deployment.

## 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 GUI HCI	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 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

- |   |                                      |           |
|---|--------------------------------------|-----------|
| <b>Software Development Manager</b>   | <a href="#">Wellspring Worldwide</a> | 2010-2011 |
| <ul style="list-style-type: none"> <li>▪ Wellspring had a million lines of code in its product, but no tests or automation and legacy date center</li> <li>▪ Transformed legacy ops from data center to automated CI/CD test, build, and deployment pipeline</li> <li>▪ Wellspring is still operating independently today after moving from Pittsburgh to Chicago</li> </ul>  |                                      |           |
| <b>Project Engineer</b>   | <a href="#">Applied Perception</a>   | 2008-2009 |
| <ul style="list-style-type: none"> <li>▪ Applied Perception built nascent robotics for military clients</li> <li>▪ Ported C# GUI to Linux <a href="#">OCU</a> C++/Qt; Coded Python XML sonar parser/viz to bridge C++ GUI to <a href="#">UUV</a></li> <li>▪ Applied Perception was first acquired by Foster-Miller, then Foster-Miller was acquired by QinetiQ</li> </ul>   |                                      |           |
| <b>UI Software Developer</b>  | <a href="#">Nomos</a>                | 2006-2007 |
| <ul style="list-style-type: none"> <li>▪ Nomos built radiotherapy treatment planning hardware and software products on Mac OSX</li> <li>▪ Wrote C++ QA tests for Corvus radiation oncology product; Prototyped 4D design in C++/Qt</li> <li>▪ Nomos was acquired by North American Scientific, then acquired by Best Medical.</li> </ul>  |                                      |           |
| <b>Software Design Engineer</b>   | <a href="#">MAYA Design</a>          | 2004-2006 |
| <ul style="list-style-type: none"> <li>▪ MAYA was a design studio and technology research lab founded by 3 CMU professors circa 1989</li> <li>▪ Built AJAX stack on Linux &amp; Mac Python and NoSQL DB; built predecessor to Hue C#.net for Philips</li> <li>▪ MAYA was acquired by BCG and operates today as BCG Platinion</li> </ul>   |                                      |           |
| <b>Co-Founder</b>   | <a href="#">Cobind</a>               | 2003-2004 |
| <ul style="list-style-type: none"> <li>▪ Conceived, marketed and launched startup to build custom Linux distros online</li> <li>▪ Designed, built, and shipped the <a href="#">Cobind Desktop</a> - PoC of the DIY build tools</li> <li>▪ Reached a worldwide audience quickly using free media and our website via word-of-mouth marketing</li> <li>▪ Failed fast when we realized that founding delivered more epiphanies and insights than any formal education</li> </ul> |                                      |           |

## Experience (1099)

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

## Education and Awards

- |          |                                     |              |   |
|----------|-------------------------------------|--------------|---|
| Duquesne | <a href="#">Bachelor of Science</a> | InfoWorld    | <a href="#">Top 100 Award</a>             |
| MIT (CE) | <a href="#">RDBMS and IAP</a>       | Idea Foundry | <a href="#">Transformation Fellowship</a> |