

**David Watson**




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## Summary

**tl;dr**; A decade of C++ on Windows, a decade of Python on Mac, a decade of Postgres on Linux. 

My computer science **merit award** rescued my education as a music school dropout. Finished the **BS** at night while a data center programming **internship** ignited my passion for software.

Honed my craft **automating** operations, **developing** user interfaces, and **managing** Unix systems.

As the **Unix** sun set on my first decade, the **Linux** sun rose as a **fellowship** catalyzed my **startup**, Cobind.

The next decade's roles included rapid **prototyping**, automated **deployment**, and **designing** *MVP* into *MAYA*.

My management roles have included playing moderator to the middle road from conflict to consensus. Consensus wasn't always required, which is what gave rise to sensemaking **agile**, **lean**, or **action learning**.

## Experience (W-2)

### Senior Member of Technical Staff

[Carnegie Mellon University](#)

2020

- Research related disciplines at the intersection of academia, industry, and government
- Worked as a member of the Emerging Technology group which became the AI division
- Projects included Artificial Intelligence, High Performance Computing, Human Computer Interaction

### 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 dands 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 providigital 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 glycia 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 data center</li> <li>▪ Transformed ops from fire-fighting to automated CI/CD pipeline on Capistrano, Mechanize, and Selenium</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 OCU in C++/Qt; Coded Python XML sonar parser/viz to bridge C++ GUI to UUV</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 Cobind Desktop - 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> </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 ZCU-104</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 PostGIS and web2py</li> </ul>            |                                 |      |

**Education and Awards**

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