

# David “Davi” Post

Software developer  
[DaviWorks.com](http://DaviWorks.com)

Madison, Wisconsin, USA  
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Seeking to apply my software engineering skills and experience to improve health, happiness, and security for thousands of people.

## 25+ years of experience:

- Research and education: agriculture, weather, genetics, psychology
- Social science: census demographics, survey processing, election results
- Electronics: test equipment firmware, serial interfaces, signal processing
- Health: wellness tracking, sleep medicine
- Other: Transportation logistics, document processing, blockchain, numerical analysis

## SKILLS

Languages: Python, Java, Javascript, C, Assembly languages, Visual Basic, Pascal, SQL, Bash

Web technologies: HTML, CSS, Javascript, FastAPI, Flask, Django, DOM, XML, JSON, REST APIs

Development tools: Git, GitHub, Jira, CI/CD, AWS, GCP, Docker

Databases & ORM: PostgreSQL, MySQL, SQLite, MongoDB; SQLAlchemy, Django ORM

## EDUCATION

B.S. Computer Science, Cornell University

## EXPERIENCE

**Software Engineer (Contractor), [Survey 160](#)** (2024-2025)

Developed a web application to manage a panel of survey respondents. Designed relational database models. Implemented data validation and data cleaning. Developed display of demographic statistics. (Python, FastAPI, Pydantic, SQLAlchemy, PostgreSQL)

**Integration Engineer, [EnsoData, Inc.](#)** (2021-2022)

Developed features, investigated issues, fixed bugs, reviewed code, edited documentation, mentored developers. Improved read/write of sleep study signal and event data, integrating seven different formats with AI and viewer software. (Python, MongoDB, Google Cloud, Git, pytest)

**Software Developer, [Ordinal Science](#)** (2019-2021)

Developed software for bidirectional integration of HR and real-time transportation data streams, interfacing with multiple APIs and databases. Designed and implemented security management API. Wrote and edited documentation, reviewed code. (Python, Java, MySQL, Bash, Flask, Javascript, HTML)

**Freelance consultant and web developer, [DaviWorks.com](http://DaviWorks.com)** (2000-2018)

(See [CONSULTING](#) section below.)

Designed, implemented, and maintained 12 websites using HTML, CSS, Javascript, and Python.

**Developer, [img2track knitting machine software](#)** (2012-2017)

Developed desktop application that converts a photo or graphic to a stitch pattern, and loads it into a knitting machine via a USB-to-serial interface cable. (Python, wxPython)

**Volunteer developer, [OpenElections project](#)** (2016-2021)

Developed software to convert election results in various formats to a common format for public use. Used continuous integration testing; [open source](#).

**Programmer and consultant, Sitness (Jonathan Garber Massage & Yoga)** (2016)

Developed web application for a wellness startup to track employee participation in microbreak exercises. Designed user interface, database, charts. Written in Django, Python, D3.js, Javascript.

**[PlotWeather.com](#)** (2003-2013)

Designed an original graphical format for 7-day weather forecasts, including temperature, precipitation, cloud cover, wind, and warnings. Wrote Java applet to decode forecast and draw graphic. Wrote Python modules to fetch and decode National Weather Service forecast XML data.

**[Modspan.com](#) (Modular Specification of Programming Languages)** (2011-2015)

Developed a meta-language for writing programming language specifications, and a universal compiler driven by it. Currently compiles a subset of C. Written in Python; [open source](#).

**[Gonquest.com](#)** (2007-2010)

Created and developed an online multiplayer real-time strategy game based on [Go](#). Designed and implemented web browser client in Java and Javascript, server modules in Python.

**[PlotClimate.com](#)** (2007-2013)

Developed graphical visualizations of historical weather data, to compare locations and examine climate trends.

**Programmer-Analyst, [CoGenTex Inc.](#), Ithaca NY** (1997-1999)

Developed a desktop application for building software models from written documents, and a web application for tracking software development. (Java, Javascript, HTML, SQL)

**Programmer-Analyst, Cornell Univ. Animal Science Dept.** (1996)

Developed simulation software for teaching genetics and animal breeding. Designed databases and user interfaces; wrote code and documentation. (Microsoft Access, Visual Basic)

## **CONSULTING AND OTHER WORK**

**Contract consulting and code quality evaluation** for a \$4B retail company.

**Developed** embedded software for analog and digital signal acquisition in electronic test equipment.

**Analyzed** OpenCL C and Python implementations of the Ethereum blockchain algorithms. Performed data flow analysis and numerical analysis. Optimized hardware design for numerical computations.

**Mentored** at six hackathons, advising students on software and hardware (Python, Java, Arduino).

**Software architecture and IoT (Internet of Things) consulting** for a construction industry start-up.

**Contract developer**, global security company agile scrum team (unit testing, code reviews, Git, JIRA).

**Consultant** for social science researchers processing large datasets (SAS, SPSS).

**Master Electrician**, engineering and operating lighting systems for 14 concerts and theater productions in 800-seat theater. Repaired equipment; programmed moving-beam controllers. Supervised technicians.