

DAVID WHEELER

Principal Architect

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OBJECTIVE

Open Source Engineer

PROFILE

A 25-year industry veteran and open source contributor, I create elegant interfaces and tools for software engineers and users. A detail-oriented human, I collaborate on designs, devise integrated architectures, and implement high quality solutions from first principles to deployment. A passionate champion of empathy and care, I strive to create a welcoming, thoughtful, and humane working environment

SKILLS

Architecture

Software architecture
Distributed systems design
Platform architecture
API design
REST API design

Open Source

[SQL/JSON Path](#) (Go)
[RFC 9535 JSONPath](#) (Go)
[PGXN v2 SDKs](#) (Rust)
[JSONSchema](#) (PostgreSQL)
[Sqitch](#) (Perl)
[pgTAP](#) (PostgreSQL)

Communication

Public speaking
Technical & essay writing
Technical specifications
Architecture diagrams
Cross-team coordination
Consensus building

Expertise

Technology innovation
Encryption patterns
Change management
Software deployment
Product specification
Team development

EXPERIENCE

Principal Architect

Tembo, 2024–Present

- Initiated [PGXN v2](#), a community-based distributed architecture for publishing, discovering, and packaging PostgreSQL extensions
- Worked with PostgreSQL hackers on [RFCs](#), documentation, and patches to improve PostgreSQL extension packaging and installation
- Designed and developed Rust crates for PGXN v2 tools and services for developing, publishing, and packaging PostgreSQL extensions
- Organized the PostgreSQL Extension Summit at PGConf.dev and PGConf.eu, as well as a series of virtual “mini-summits”
- Led a team to develop foundational documents to establish the mission, vision, and ethical values for the company
- Led the discovery and community networking to build the case for the PostgreSQL Ecosystem Foundation, soon to be formed under PgUS
- Mentored senior engineers and managers on career growth, software design & development, trust, team leadership, and communication

Staff Engineer

The New York Times, 2021–2023

- Designed and implemented [CipherDoc](#), an encrypted entity storage service in Go, built on JSON Schema, Google Tink, and SQL/JSON Path
- Founded Tech Leadership Book Club, marshaling titles to read and leading weekly discussions amongst senior & staff engineers and managers
- Mentored a senior engineer, a senior designer, and junior team members
- Developed and gave multiple presentations, internally and externally, on encryption, engineering craft, projects, parsers, patterns and practices
- Collaborated with fellow staff engineers to champion SRE standards and patterns for secure service design, observability, and deployment

DAVID WHEELER

Senior Architect

Values

Equality & Diversity
Privacy & Security
Empathy & Compassion
Curiosity & Creativity
Education & Mentorship
Leadership & Responsibility
Opportunity & Commitment
Focus & Execution
Collaboration & Community
Strong Opinions, Loosely Held

Education

MA, Anthropology, 1996
University of Virginia

BA, Anthropology, 1993
California State University

Community

GitHub
PGXN
PostgreSQL
CPAN
XOXO Festival
Rands Leadership

Tools

Go, Rust, Perl, SQL
PostgreSQL, Sqitch
Docker, Kubernetes
GitOps, Observability
JSON Schema, SQL/JSON Path
Jenkins, GitHub Actions, Drone
Swift, Objective-C
Git, GitHub, BitBucket
GitHub Issues, Jira

Senior Architect

iovation/TransUnion, 2013–2021

- Collaborated with Enterprise Architecture and Global Fraud Solutions to develop road map for platform modernization and cloud transformation
- Founded and chaired Architecture Council empowered to oversee, approve, and provide guidance for company architecture initiatives
- Initiated and led design & Go implementation of highly-scalable encrypted token solution to protect personal data
- Invented attack-resistant encrypted token algorithm to enable equality operations without decryption
- Led expansion of GDPR compliance project to protect personal data
- Conceived and prototyped encrypted identity service in Go requiring end-user credentials to decrypt personal data
- Reinvigorated iOS SDK now deployed to millions of devices globally
- Shepherded creation of dedicated mobile SDK team

Senior Data Architect

iovation, 2011–2013

- Conceived, implemented, and shipped Sqitch, an open-source database change management app adopted to manage all company RDBMSes
- Designed and deployed highly-available, shared-nothing, multi-data center relational database architecture
- Designed, deployed, and migrated product configuration and reporting data to relational databases

Co-Founder

Lunar/Theory, 2010–2013

- Co-created, fully-developed, and launched DesignScene for iPad, a visual inspiration app for creative people
- Designed, developed, deployed, and maintained RSS-driven web service for DesignScene

Founding Associate

PostgreSQL Experts, 2009–2011

- Conceived, raised funding for, implemented, and launched PGXN, the PostgreSQL Extension network, www.pgxn.org
- Expanded application development and database design services to encompass half the business
- Implemented query and log analysis tools for the “Virtual DBA” product to cut work time in half
- Redesigned full-text search implementation for major online retailer that improved home-page query performance over 95%