Quinn D. Weaver <quinn@fairpath.com>

Experienced PostgreSQL DBA and DevOps engineer

PROFESSIONAL EXPERIENCE

Switchfly, Inc.   *May 2019 – present*
Senior Database Administrator   *San Francisco, CA*

Own the company's DB infrastructure, and manage its transition to the cloud.

- Own the company's DB architecture and roadmap.
- Advise the executive team on technical options for migrating to the cloud.
- Migrate a legacy Greenplum billing system to PostgreSQL 12 / Oracle Cloud Infrastructure (OCI).
- Write DevOps automation code Oracle Cloud migration (Ansible playbooks and Jenkins pipelines).
- Maintain and write SaltStack code to manage legacy bare-metal and VMware infrastructure.
- Hire and train a new, offshore DBA team and (including non-PostgreSQL-users)
    - and train them to to the point where they could handle tickets and incidents autonomously.
- Provide L3 incident response, root cause analysis, and support.
- Review schema migrations and perform app releases.
- Manage day-to-day DBA tasks such as backups, upgrades, migrations of noisy neighbors to separate machines, pg_repack'ing, and performance tuning.
- Advise on legacy hardware purchases; benchmark and burn in bare-metal hardware.
- Write monitoring plugins (in Python using psycopg2, for Check_MK).
- Maintain legacy ETL scripts and other automation tools written in Bash, Perl, and Python.
- Maintain legacy release management code / configuration (Ruby / Capistrano modules).

PostgreSQL Experts, Inc.   *March 2009 – May 2019*
Managing Director   *San Francisco, CA*

Co-found a consulting company to provide database consulting services to clients on bare metal, EC2, RDS, and Google Compute Engine (GCE).

Management, Communication, and Community Organizing
- Serve on the Board of Directors of PostgreSQL Experts.
- Manage customer projects.
- Train a newly hired graduate from an apprentice, to an expert consultant managing client projects.
- Create and deliver conference presentations. Highlights: (auto)vacuum (slides); locking (slides).
- Blog about PostgreSQL and related topics.
- Assist in running the San Francisco Bay Area PostgreSQL Meetup: recruit speakers, book venues, and host sessions.
- Staff the company booth in conference expo halls; answer questions and talk shop with visitors.

PostgreSQL Experts, Inc. (continued)

Database Consulting and Database Administration

- Advise on architectural decisions: capacity planning, provisioning, RAID config, backup strategies, multitenancy options, schema design, and sharding.
- Measure performance; tune hardware, OS settings, kernel config, queries, and connection-pooling.
- Autovacuum: troubleshoot issues; tune settings; address XID age issues.
- Set up and test replication and PITR backups (WAL-E, Barman, EFM and in-house systems).
- Set up monitoring and write custom Nagios plug-ins.
- Set up and test replication and PITR backups (WAL-E, Barman, EFM and in-house systems).

Software Engineering

- Write, test, and deploy DevOps automation code (Salt, Chef).
- Write glue code, tools, and cron jobs in Bash, Python, or Perl, depending on client requirements; write a script for nightly concurrent index rebuilds, using Python with the *multiprocessing* package.
- Help maintain our consulting firm's in-house Python and SQL tools.Set up connection pooling (PgBouncer); fix issues with app-level connection pooling.
- Migrate databases to new servers. Migrate bare-metal servers to ECS or RDS.
- Migrate data from Microsoft SQL Server to PostgreSQL.
- Perform PostgreSQL minor– and major-version upgrades (pg_upgrade; pg_dump/pg_restore).
- Set up PostgreSQL LDAP authentication.
- Write unit tests using pgTAP.

Quinn Weaver Consulting	***February 2007 – March 2009***
Freelance Consultant	***Oakland, CA***

Develop Perl web and VOIP apps, for clients in a variety of industries. Highlighted projects:

- Port a legacy VXML (Voxeo) IVR system to Asterisk, rewriting the old system from scratch.
- Using Perl, Catalyst and jQuery, write an intranet web UI for an in-house Ant build system.
- Performance-tune the mod_perl server that provided an internal web service.
- Add features to a RESTful Apache web service that wrapped a proprietary third-party product.
- Prototype an intranet web app in Perl, Catalyst, MySQL, and jQuery to track scheduled and administered medication dose schedules for hospital.
- Conduct a client's Perl Catalyst evaluation. Wrote a prototype app; chose libraries for templating, ORM, form-processing, web services, and logging.

Fairpath	***May 2005 - February 2007***
Entrepreneur	***Oakland, CA***

Start Fairpath, a company focused on VoIP IVR.

- Write Dido, a Perl IVR development platform based on Asterisk. Present at CodeCon 2006.
- Set up and administer web, monotone, and Asterisk servers for the system.

Barclays Global Investors   *January 2001 - April 2005*
Software Engineer II   *San Francisco, CA*

Develop quantitative trading software for a large institutional investor.

- Help develop and maintain a quantitative trading system for active investment; add new programs and features to the system, working closely with the en users (portfolio managers).
- Refactor this trading system as an intranet SOAP service, using object-oriented Perl. Resolve interoperability issues with other languages.
- Design and document a custom mod_perl service to act as an intermediary between client apps (written by different groups in different languages) and legacy database systems (with different schemas), transcoding data into a database-agnostic XML format.
- Conduct the company's evaluation of Perl web templating systems.
- Add audit-mandated data to an in-house security and Sarbanes-Oxley database. Add code to monitor Sybase, Windows, Unix, and NIS+ group access, and raise exceptions for unauthorized privilege grants. Extended a complex database schema to accommodate these new data.
- Manage my group's migration from RCS to hosted CVS. Train fellow developers on CVS. Wrote Perl command-line tools to push code to QA and production boxes. Write a script to import stray post-migration RCS checkins from RCS to CVS.
- Develop a web-based stock data visualization tool for portfolio managers.

Vovida Networks, Inc. / Cisco Systems, Inc.   *October 1999 - January 2001*
Software Engineer I   *San José, CA*

Own the infrastructure for a rapidly growing VoIP start-up. Write tools for use by developers.

- Build the Linux desktop, Linux server, and LAN infrastructure as the start-up grew from 15 people to over 70, moved to a second office, and was acquired by Cisco Systems.
- Hire and train an assistant sysadmin.
- Write a SIP protocol analyzer in Perl and Tk.

IBM Almaden Research Center   *June 1999 - August 1999*
Intern   *San José, CA*
- Write plugins and documentation for the Java smart web proxy WBI. Later this product was commercialized as the core of an IBM XML transcoding engine.

Indiana University   *June 1998 - October 1999*
Unix Workstation Support Specialist   *Bloomington, IN*
- With a team of four others, provide Unix system administration and consulting for university departments' heterogeneous mix of Unix flavors and hardware (I specialize in Linux and Solaris).
- Help plan curriculum and write web pages for USAIL, a first-of-its-kind online course for training new Unix systems administrators.
- Teach lecture sessions; coach students through hands-on training.
- Administer my group's mail and web server (sendmail and Apache on Solaris)

EDUCATION
Indiana University, Bloomington
Bachelor's Degree: Double Major in Cognitive Science and Classical Studies; Minors in Computer Science and Spanish