

Academic History

Rochester Institute of Technology, 1997; M.S., Computer Science.
 City College, 1992; B.S., Computer Science.

Core Competencies

PostgreSQL administration, optimization and programming on the cloud (**Heroku**, **AWS RDS/Aurora**) and on-prem
SQL expert in developing and optimizing with **SQL**, **PL/pgSQL** and **PostgreSQL** extensions
devops excellence in providing global operational support and database development expertise for a multinational
modeling relational and dimensional, for **OLTP** and **DSS** applications
Unix 30+ years experience with **Linux** and **FreeBSD**
ruby 15+ years experience for database, web and general programming

Other Skills

agile 10+ years experience with the modern agile workflow using **git**, **Bitbucket**, **Jira** and **Confluence**
automation experienced with **Ansible** for database provisioning, configuration and management
containers experienced containerizing database related toolchains with **docker/podman**
rails web application development
PostGIS programmed geospatial applications with **PostGIS**

Employment Record

07/2019–	<p>Align Technology Expert Cloud Database Engineer, responsible for Invisalign doctor portal databases—development and operations. Manages a mix of PostgreSQL clusters on Heroku and AWS RDS/Aurora. Reviews all pull requests for database related code, mentors developers, and advocates best practices. Researches database related performance bottlenecks and proactively fixes them. Programming with PL/pgSQL, ruby and Ansible.</p>
12/2018–05/2019	<p>Workstand Data Architect, designed databases to support migrating from a monolithic to a microservice architecture. Implemented data migrations and Elasticsearch indices. Provisioned PostgreSQL infrastructure on GCP Linux, with high availability (streaming replication), automated backups (Barman) and connection pooling (PgBouncer).</p>
5/2017–10/2018	<p>Pace Computer Solutions Subject Matter Expert, Social Security Administration. Implemented custom PostgreSQL infrastructure on AWS EC2 Linux with automated provisioning, high availability (streaming replication), backups, point-in-time recovery, and monitoring. Programming with Ansible, bash, perl and ruby.</p>
3/2015–3/2017	<p>CGH Technologies Senior Data Architect, Federal Aviation Administration. Designed databases for airspace applications, developed applications' database codebase and supported operations. Setup on-prem PostgreSQL with high availability (streaming replication), backups and monitoring. Developed processes for calculating and delivering airspace data feeds to production and development databases. Programming using PL/pgSQL, ruby and PostGIS.</p>

12/2005-2/2014

Acquisition Technologies

Senior Database Engineer at Raytheon. Managed PostgreSQL databases that ingest data from NASA's earth orbiting satellites. Authored core PostgreSQL infrastructure: automatic generation of database patches from source control, an advanced ruby PostgreSQL API, the automated backup system, and a good portion of application logic residing in databases as functions. Key contributor to the development of a migration plan for transitioning from Sybase ASE to PostgreSQL, and executing the plan at NASA's data centers. Central role in the migration of a large Sybase ASE codebase of stored procedures to PostgreSQL functions. Mentored and guided development teams with respect to anything database related. Developed and maintained a web geospatial application that gives users the ability to "subscribe" to earth data of interest. Data modeling, database administration and programming with Sybase ASE and PostgreSQL using T-SQL, PL/pgSQL, perl, and ruby on Linux and Solaris.

4/2005-12/2005

Technology Professionals Exchange

Project Lead at AOL Inc., Quality Engineering Team. Developed data marts to support analysis of product "phone-home" data. Performed system analysis, designed and deployed dimensional data marts onto Microsoft SQL Server. Implemented the ETL processes for staging, cleaning, and loading the data feeds onto the data marts. Programming with perl on Microsoft Windows.

9/1998-9/2004

PTFS

Project Lead, at the U.S. Naval Research Laboratory. Lead the development of the web based system that NRL scientists use to search and browse articles from thousands of scientific journals from all the major publishers. Built the development team and provided mentoring and technical direction. Received technical excellence award. The system received numerous awards and high praise from end-users. Various U.S. government organizations (DOD, NASA, NIST, etc.) pay for access to it. Data modeling, database programming and administration with Sybase ASE, application development with perl and C on Solaris.

4/1994-8/1998

Rochester Institute of Technology Research Corporation

Computer Scientist, member of the 2000 U.S. Census Data Capture System team. Assisted the U.S. Census Bureau with defining requirements for the 2000 U.S. Census Data Capture System, and facilitated the publication of a high quality RFP. Invited by the winning contractor, Lockheed Martin, to join their development team, responsible for the implementation of the Optical Mark Recognition subsystem for the 2000 Census. C++ and perl programming on Microsoft Windows and Unix.

5/1992-8/1992

Intracom

Summer intern; member of the development team that implemented the command editor for the Ericsson AXE-10 digital telephone exchange on behalf of the Hellenic Telecommunications Organization; Programming in C.