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Robert E. Brewer

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employment

Etsy, Inc.

Software Engineer

Aug 2007 - present

Designed, built and deployed a new front end web application server

Designed, built and deployed a new "middle layer" (data server)

Designed a RESTful JSON protocol and media-type

Wrote architectural analyses

Administered version control, knowledge management, and ticketing systems (SVN + Trac)

Wrote a version-control tool for database schemas.

Amor Ministries

Director of IT

2006 - Jul 2007

System Architect

1999 - 2006

Designed, built, deployed and maintained a complete online billing system

Integrated "The Raiser's Edge" CRM app

Mission Trip Coordinator

1994 - 1999

Led volunteer work teams in house construction

The Semi-Spontaneous Shakespeare Society

Founder, President/CEO

2001 - 2004

Directed volunteer teams in theatrical production

selected open source projects

CherryPy HTTP Framework

Popular HTTP/1.1 compliant framework for Python

Lead Developer; author version 3

Dejavu / Geniusql Object-Relational Mapper

Complete Python-to-SQL decompiler and relational engine

Lead Developer

WSGI gateways for [modpython](#) and [ASP](#)

First WSGI gateways for mod_python and for IIS/ASP
Sole Developer

[Epic](#) Postgres Test Framework

Complete unit test framework for PostgreSQL stored procedures
Sole Developer

expertise

Python

API design
Metaprogramming
Virtual machine (bytecode/AST)
Testing, profiling, tracing, optimization
Multithreading and concurrency
Sockets
Win32 and COM

HTTP

All relevant RFCs: HTTP/1.1, URIs, MIME, authentication
REST architectures
Apache: modules, workers, internals

Databases

Postgres, SQL Server, Microsoft Access, MySQL, SQLite, Firebird, DBM
SQL 87/89/92/99
ACID theory and phenomena, transactions
Federated/Mediated Databases
Relational algebra
Type systems/translation/equivalence
Sharding

Web Programming

CSS, HTML/XHTML, JavaScript, PHP, AJAX, DOM, JSON

Network Architectures

IP, TCP/UDP, DNS, DHCP
SMTP, POP, IMAP
COM, RPC, IPC
Filesystems, wikis, document management
Memcached
VPN, VNC, SSH/SCP, FTP, DAV, rsync

Application Architectures

OLTP, CRM
OLAP, Query engines, reporting tools
MVC
Internet-scale applications

publications

[CherryPy Essentials](#)

Technical Reviewer
[Packt Publishing, April 2007](#)

presentations

Web Frameworks Panel

PyCon 2007

education

[Pacific Christian College](#)

August 1990 - May 1993
Bachelor of Arts in Biblical Studies
Emphases in Missions, Performing Arts

[Pacific Lutheran University](#)

August 1989 - May 1990
Major in Technical Theatre

Interests

[Robotics](#)

Cognitive Science, Systems Theory, Cybernetics, Artificial Intelligence

Textual Criticism, Linguistics, [Greek](#), German, Spanish

[Theater](#): Shakespeare, Stagecraft

Music: Composition, Vocal, Guitar, Bass, French Horn