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# Robert E. Brewer

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[fumanchu@aminus.org](mailto:fumanchu@aminus.org)

## 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