PETER THEOBALD

**Site Reliability Engineer (SRE),
Software Engineer (SWE)**

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PROFESSIONAL EXPERIENCE

META (formerly FACEBOOK) - Jan 2021 to Jan 2023, NYC and Menlo Park, CA
Production Engineer (hybrid SRE/SWE) - Messaging Infrastructure
Software and systems engineer responsible for writing production code solving systems problems in reliability, scalability, performance, and security for one of the world's largest distributed computer networks serving billions of people across Facebook, Instagram, WhatsApp, Oculus and other products.
- Instrumented performance metrics into messaging infrastructure
- Refactored subsystems to save latency, reduce cpu usage and modernize internal APIs
- Investigated end-to-end latency issues across complex interacting subsystems
- Testing and prep for extreme messaging traffic events such as New Year's Eve and World Cup
- Instrumented feature cutoff switches for emergency response; Evangelized and organized additional cross-functional set of cutoff switches with other related teams
- Continual improvement of team's On Call processes, alerts, metrics and dashboards, including maturing the team's operational ownership by setting SLAs on core metrics.
- Member of 24/7 On Call
- *Hack (strongly typed OO PHP),* ***Python, C++, Java***

TC FORENSICS INC. (formerly KLG COMPUTER FORENSICS) - Nov 2005 to Jan 2021, Syosset NY
Computer Forensics Analyst */ Founder*
Provided computer forensics services to attorneys, law firms and courts. Located hidden or destroyed data, investigated data breaches, provided expert testimony related to computer evidence. Court appointed expert in New York, Nassau and Suffolk counties.
- Wrote **Python** code to parse file formats, databases, filesystems (NTFS, HFS+, EXT), and encrypted data.
- Performed Extract, Transform and Load (**ETL**) of difficult, undocumented, partial and damaged data using a variety of tools including Open Refine and custom **Python** code
- Bitcoin (cryptocurrency) tracing, wallet recovery, transaction tax calculations
- Analyzed computer and cell-phone data (FTK, X-Ways, MPE, Scalpel, Linux) in over 200 litigated matters.
- Design and admin of cost-effective reliable ZFS-on-Linux SAN with snapshots and off-site replication for hundreds of Terabytes of evidence storage
- Presented seminars, public speaking engagements and training in computer forensic topics.

TURTLECOVE TECHNOLOGY, INC. - Jan 2000 to Jan 2021, Syosset NY
Software Developer
Developed full-stack web sites and desktop applications. Clients included SponsorClick.com, AgencyAccess.com, DMLT (Investment Cafe), Wine Alert (eRobertParker.com), ICS Network Systems (MailSentry), AllBooks4Less.com (Half.com) and more.
- Technologies used include **Python**, **C++**, **Cold Fusion**, **PHP**, **Javascript**, **jQuery**, **SQL**, Web spidering, **Linux admin**, Sendmail milter plugins

LI NET, INC. (Acquired by VERIO, INC.) - Nov 1995 to Oct 1999, Smithtown NY
Co-Founder
Founded Internet Service Provider with three partners and little capital; In the span of four years we built LI Net to the largest ISP on Long Island, NY providing high speed Internet access and web hosting to thousands of Long Islanders and hundreds of companies. LI Net was acquired by Verio/NTT, a national roll-up of the top 50 regional ISPs, for over $7M and merged into their national network.

- Web site development (**Cold Fusion**, **MySQL**, **Javascript**, **JQuery**, HTML)
- **Linux admin** (**Perl**, **Bash**), Apache server admin, Usenet server admin, networking configuration
- Sales engineer, Public speaking (seminars, presentations), Training

LEHMAN BROTHERS, INC. - Nov 1993 to Nov 1995, New York NY
Senior Systems Analyst, Fixed-Income Derivatives
- Supported overnight value-at-risk calculation process (**C++**, **Perl**, sh/**bash**, **SQL**/Sybase)
- Added support for Bermuda style options to Black Scholes based option pricing modules (**C++**)
- Supported derivatives trading desk and SUMMIT trading system (Summit, **C++**, **Perl**, **Bash**, **SQL**/Sybase)

QUOTRON SYSTEMS / CITIBANK - Jun 1993 to Nov 1993, New York NY
Software Consultant - contractor
- Added custom functionality (**C/C++**, **SQL**) and provided training to Quotron Trading Support System clients such as Credit Suisse First Boston, Paine Webber

ERI - Nov 1991 to Jun 1993, Hauppauge NY
Senior Programmer/Analyst
- Designed and developed ERI's document imaging system (**C++**, **SQL**/Informix, X/Motif GUI)
- Developed custom solutions (**C++**) for clients such as Salomon Bros., Price Waterhouse
- Performed installations and training for Salomon Bros., Brooklyn Union Gas, Banco Bradesco (in Sao Paulo, Brasil)

PATENTS

US Patent Pending US20090300128 A1, "E-MAIL AUTHENTICATION PROTOCOL"

EDUCATION AND CREDENTIALS

- University at Buffalo: B.S. Computer Science
- AccessData Certified Examiner (ACE), AccessData Mobile Examiner (AME)
- New York Institute of Finance: Intermediate & Advanced Derivative Products

PROFESSIONAL AFFILIATIONS

- Member Board of Advisors SUNY Farmingdale Computer Security Department - Dec 2019 - Present
- Co-chairman of the Computer Forensics subcommittee of the American Bar Association, Section of Litigation Expert Committee - Apr 2013 – Sep 2014