Sean Levy aka attila
Software Developer

Web: https://haqistan.net
Email: attila@haqistan.net
Fediverse: @haqistan@hachyderm.io

About me I have lived and worked in Southern California, Pittsburgh, Boston and Portland in settings ranging from high-level academic research to high-pressure dot com chaos. In 2005 my wife and I moved to Yucatan, Mexico, where we live in a small town on its western coast. I focus on telecommuting work arrangements and coordinate with my clients and colleagues over the Internet.

I am self-motivated, used to producing substantial volumes of work on my own, am adept at reverse-engineering existing work and fixing hard-to-find bugs and have a proven track record of being productive in teams that are geographically dispersed. I am comfortable in many roles on a software development team and have worked in a range of environments, from academic research to high-pressure startups. Small engagements are acceptable.

Knowledge and Experience

Operating Systems
- Unix, including BSD and Linux: internals, drivers, etc.
- Android
- DOS, Windows, Embedded Environments

Environments and Languages
- C /C++, various assemblers
- Python (Flask, etc), Perl (Mojo), PHP
- Typescript/JS, both browser and server
- SQL, deep in PostgreSQL and PL/SQL
- Java / JVM-related
- Every Unix shell
- Many build systems, deep knowledge of packaging systems
- Deep experience with Parsers, Compilers, CFGs, PEGs
- Deep experience with the Web, Search, Databases
- Learning: Rust, Dart

Other Skills
- Seasoned writer with contributions to many publications
- Fluent in English and Spanish, exposure to other languages

Experience

October 2017 - March 2024, Founder at ClearOPS.io (Remote)
Used Modern Perl to build a data collection system for Internet metadata (WHOIS, DNS, other externally visible / unavoidably public data sources). Implemented an analytical engine that produces reports based on this data, analytics stack in SQL and PL/SQL under PostgreSQL, web interface and API.

November 2015 - 2017, Part-Time Contractor, Manicube.com (Remote)
Infrastructure work for a small startup recently aquired by a much larger company. Duties include debugging, performance analysis, monitoring, consulting on general infrastructure and development issues and the development of new components in Python, JS and Perl.

September 2014 - 2017, Open-Source Work
Ported Tor Browser to OpenBSD. Wrote driver for the Araneus Alea II USB TRNG, got it accepted into tree (now known as urng), maintained various ports including Tor Browser.

July 2012 - August 2014, Software Engineer, kWantera LLC (Remote)

Leading-edge energy market arbitrage startup. Architected and implemented first version of their next-gen client-facing portal, with bootstrap and d3 on the front end and Flask on the back end, using WebSockets for real-time updates. Built the core of their data collection system which integrates demand data from industrial customers with live market data from all major Independent System Operators (ISOs) in the United States.

January 2007 - June 2012, Chief Architect, Lytix LLC (Remote)

Designed and implemented a semantically-aware graph-oriented database system and analytical back end which used P2P techniques to extend the functionality of the system. Core system was in ANSI C: a graph representation and manipulation API that with integrated support for ontology, flexible containers and typed attributes on all objects. Included application stack for building dynamic web-based interfaces, RPC-based API using Google Protocol Buffers and JSON-RPC. Used as the platform for a suite of financial analytics applications (”Google maps for the financial world”).

July 2004 - July 2006, Perl Contractor /Clue Factory (Remote)

Various employers found mostly via `jobs.perl.org`. Worked over full spectrum of various perl-based web stacks on systems ranging from simple scripts to an internationalized poll-taking system for radio market research with tens of thousands of simultaneous users. Used Perl5 under Debian Linux and FreeBSD with various frameworks (Mason and various other templating systems, DBI, etc.).

June 2001 - July 2004, Member of Technical Staff, CERT/CC (Pittsburgh, PA)

Focused on AirCERT, an open-source system for the collection, analysis, dissemination and archiving of security-related data such as IDS logs. As member of technical staff also advised on incident and vulnerability reports, consulted with research groups, etc. . .

March 2000 - April 2001, VP Eng., Halosoft Inc. (Pittsburgh, PA)

First employee of a CMU-based startup founded by Dr. Levent Gursoz and funded by Kleiner Perkins Caufield and Byers. Played integral role in acquiring funding, forming technical team, and leading efforts aimed at benchmarking and improving the scalability and performance of leading-edge virtual machine technology.

September 1998 - August 1999, Research Programmer, PDL, CMU (Pittsburgh, PA)

Programming and research in the area of network-attached storage and other research areas of interest to the Parallel Data Lab (PDL), a research group within the School of Computer Science at Carnegie Mellon University.

September 1996 - January 1998: Senior Member of Technical Staff, Lycos, Inc. (Pittsburgh, PA)

System Programming Team Lead, responsible for reporting system for Lycos Web service, benchmarking, troubleshooting, and general software development projects in the Operations Group. Managed a team of four people including self. Oversaw the implementation of the ad management system, the first of its kind on the Internet at the time.

1988 - September 1996, Senior Research Programmer, EDRC, CMU (Pittsburgh, PA)

System architect for n-dim, an information-modeling tool and support system for collaboration. Design and implementation of all facets of the system and co-authorship of publications as a part of a team of 6 developers (4 graduate students, 2 staff) and multiple faculty/researchers. Maintenance and additional development on many graduate-student-authored systems to make them useful to other projects inside the center.

References

References available upon request.