SEAN LEVY AKA ATTILA
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Headline Summary

- Unix expert for over 30 years: **C**, **ksh/bash**, **POSIX**, Unix Systems Programming at every level

- Deep in relational databases, specifically **PostgreSQL**

- Decades of experience with **Python**, **Perl**, **JavaScript** and the web in general

- Last decade spent working at the intersection of privacy and infosec, including substantial contributions to open-source, NGO-based work and proprietary systems

- 20 years at Carnegie Mellon University on research projects in **engineering design/support**, **OOP**, **filesystems/networked storage**, **databases**, **graph visualization**, **expert systems**

Experience

Co-Founder   **October 2017 - March 2024**
clearops.io   *New York, NY (Remote)*
- Built internet-scale data collection system focused on privacy and infosec using **PostgreSQL**, **Perl**, **Python** and **Selenium**. Collected hundreds of millions of HTTP transactions over hundreds of thousands of domains to analyze privacy footprint, 3rd party exposure for compliance with **GDPR**, **CCPA**, etc.

- Used **PL/pgSQL** to implement data analysis engine inside the database

- Full web interface with completion-based UX to visualize and search domain privacy/infosec reports derived from the raw data

- Implemented **JWT**-based authentication system that integrated seamlessly with **AWS IAM**

Part-time contractor   **November 2015 - 2017**
Manicube.com   *New York, Connecticut (Remote)*
- Managed cloud infrastructure and DevOps pipeline for a small startup using both **AWS Web Console** and open-source command-line tools

- Aided in debugging, performance analysis and implementation of new feaures in **Python** codebase using **Django**, **SQLAlchemy**, **JavaScript**

- Implemented **Nagios** across all functional units, with custom probes and the modern Nagios interface

Open Source Work   **September 2014 - 2017**
OpenBSD, Tor Projecct   *Remote*
- Ported **Tor Browser** to **OpenBSD**

- Wrote driver for the Araneus Alea II USB TRNG, got it accepted into tree as an outside contributor

- Ported tests from **NetBSD** to **OpenBSD** for some userspace programs that lacked tests

Software Engineer   **July 2012 - August 2014**
kWantera, LLC   *Pittsburgh, PA, USA (Remote)*
- Architected and implemented client-facing, chart-oriented portal, using **d3** and **nvd3** in the client and **Python**, **Flask**, **WebSockets**, **MongoDB** and **MySQL** on the back end

- Designed and implemented back-end data collection system that encompassed the entire North American power grid, on the one hand, and electricity demand data for specific clients using **PyMODBUS** on the other

- Supported a team of statisticians using **Rlang** to implement industry-leading energy market arbitrage strategies which the company acted upon

Chief Architect   **January 2007 - June 2012**
Lytix LLC   *Fully Remote Team: CDMX, Celestún, San Jose, Seattle, Salt Lake City, Helsinki*
- *Google Maps for Finance*: architected and implemented a semantically-aware graph database and analytical back end with P2P-oriented API using **JSON** over **Protocol Buffers**. Core written in **ANSI C**, frontend in **JavaScript**. Finance/Law ontology developed by experts to analyze and visualize all relationships between public companies

- Delivered high performance graph algorithm implementations that scaled horizontally and vertically, and continuous access to up-to-date data extracted from **Bloomberg** and **Thompson/Reuters** in real time (special access licenses)

Tech Stack:
ANSI C/POSIX, PostgreSQL, PL/pgSQL, Python, Flask, FastAPI, Perl, Mojolicious/Mojo, NodeJS, TypeScript, Rust, Web Assembly, tauri, Git, GraphQL, Protocol Buffers, JSON-RPC, WebSockets, JWT