Ofek Lev

Senior Software Engineer

SUMMARY

I am an engineer forever learning new technologies. Designing easy-to-use APIs or interfaces around complex systems is one of my greatest passions.

: **United States**

: **human@ofek.dev**

: **https://ofek.dev**

: **ofek** (https://github.com/ofek)

: **Ofekmeister** (https://twitter.com/Ofekmeister)

in : **ofeklev** (https://www.linkedin.com/in/ofeklev/)

Experience

Volunteer at Open Source Software

SUMMARY

I created and maintain many open source projects that are used heavily throughout industry and academia. I also care deeply about the Python and Rust communities and try to improve the ecosystems of both.

- Python bindings (https://github.com/ofek/coincurve) for libsecp256k1, which serves as the crytographic backbone of many projects, including the entire Ethereum Python community
- A package manager (https://github.com/pypa/hatch) and build system (https://pypi.org/project/hatchling/) for Python that solves long-standing pain points for users and has been adopted by Python's official packaging team
- Highly optimized Kubernetes CSI driver (https://github.com/ofek/csi-gcs) for mounting Google Cloud Storage buckets that Google credits (https://github.com/ofek/csi-gcs) in the design of their official driver
- Authored PEP 631 (https://peps.python.org/pep-0631/) which defines the standard way to specify dependencies for Python projects

Languages

English : ★★★

French : ★★½☆

Skills

Backend : ★★★

Python | Rust | Go | Docker | Kubernetes | GCP | AWS | Azure | GraphQL | REST | Serverless | Performance Profiling

Frontend : ★☆☆

HTML | CSS | JavaScript | Playwright | Selenium

Systems : ★★☆

C | C++ | Assembly

Data Analysis : ★☆☆

Jupyter | NumPy | Pandas | Matplotlib

Design : ★☆☆

Blender | Autodesk 3ds Max | Krita

A/V : ★★☆

OpenCV | FFmpeg | x264 | x265 | VapourSynth | StaxRip

Dec 2017 – *present*

Senior Software Engineer at Datadog (https://www.datadoghq.com)

SUMMARY

Datadog is the leading monitoring and security platform for bringing together end-to-end traces, metrics, and logs to make applications, infrastructure, and third-party services entirely observable.

- Acquired expertise with many technologies in order to create integrations such as for Envoy, ClickHouse, CockroachDB, Vault, Hyper-V, and TLS itself
- Implemented (https://github.com/DataDog/datadog-agent/pull/1458) the Agent's novel circuit breaker and exponential backoff logic, making our backend more resilient to failures and decreasing provisioning requirements
- Built a public docs site (https://datadoghq.dev/integrations-core/) for Integration developers from scratch, which is now referenced by the official documentation
- Architected the E2E tooling (https://datadoghq.dev/integrations-core/e2e/) for Agent Integrations, allowing anyone to spin up and test production environments with a single command
- Ensured the CI infrastructure (https://datadoghq.dev/integrations-core/meta/ci/testing/) ran smoothly and was optimized for 3 large monorepos with the most recent rewrite reducing runtime by 30% and saving thousands every month
- Improved our Helm chart generator and Bazel linter based on the needs of various teams, easing CNAB (https://github.com/cnabio/cnab-spec) adoption and making deployments less error-prone
- Introduced memory profiling facilities (https://github.com/DataDog/datadog-agent/blob/main/docs/dev/agent_memory.md#python-tracking-and-troubleshooting) that made it easier to discover the source of memory leaks
- Routinely gained expertise in different domains in order to do large-scale rewrites of core components, such as for OpenMetrics (https://github.com/DataDog/integrations-core/pull/8300) and Windows performance counters (https://github.com/DataDog/integrations-core/pull/10504), which always significantly improved performance and ease of onboarding
- Created our own Python package index for CI/CD purposes that is served by GitHub Pages with artifacts cached by Cloudflare, which does not cost anything to run and has experienced zero downtime since creation
- Conducted dozens of engineering interviews and graded a similar number of take-home tests, ensuring our hires are exceptional in both technical ability and character

Oct 2012 – Nov 2017

Full Stack Developer at Freelance

- Created and maintained APIs (usually via Python + Flask) for many clients, hosted primarily on GCP
- Created many test suites for verifying web page behavior using Selenium + PhantomJS

May 2012 – Aug 2012

Student Researcher, Intern at Computing Research Association (https://cra.org)

- Built machine learning models to detect a rare birth defect of the heart in newborn patients
- Created visualizations to better detect Patent Ductus Arteriosus based on feedback from physicians at the Johns Hopkins School of Medicine

Interests

Chess :

Analysis | Competitive

Home Automation :

Home Assistant | Raspberry Pi | IFTTT

Cryptography :

Cryptocurrency | Blockchain

Volunteer

Dec 2006 – Mar 2009

Tutor at National Honor Society (https://www.nhs.us)

- Tutored students in mathematics (Geometry through Calculus), leading to at least a 20% grade improvement in all my students

Feb 2007 – Feb 2008

Maryland Ambassador at Muscular Dystrophy Association (https://www.mda.org)

- Invited to be a guest speaker at numerous fundraising events
- Met with multiple politicians at the state capitol to help explain the ramifications of not enacting certain policies

Education

Aug 2009 – Jan 2013

Bachelor in Computer Science and Psychology from University of Maryland Baltimore County with GPA of 3.8

Awards

May 2006

County Chess Champion from Harford County Public School System

SUMMARY

Won 1st place all 3 years I attended the annual tournament

Publications

Jul 2019

in-toto: Providing farm-to-table guarantees for bits and bytes (https://www.usenix.org/system/files/sec19-torres-arias.pdf) by USENIX

SUMMARY

Acknowledged by name as a key contributor in the first production-ready implementation of this new security apparatus

May 2012

Multivariate time series analysis of physiological and clinical data to predict patent ductus arteriosus (PDA) in neo-natal patients (https://web.archive.org/web/20191208174119/http://archive.cra-w.org/ArticleDetails/tabid/77/ArticleID/225/Multivariate-time-series-analysis-of-physiological-and-clinical-data-to-predict-patent-ductus-arteriosus-PDA-in-neo-natal-patients-Final-Report.aspx) by Computing Research Association