

Jacqueline Outka

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<https://outka.xyz>

Skills and Technologies

Languages: Rust, Scala, Python, Go, Java, Bash, Haskell (beginner), JavaScript

OS: Linux (Arch Linux (x86), Fedora (x86), Debian (ARM)), Android, macOS, FreeBSD

Other: HTML&CSS, Git, Elasticsearch, Docker, Flask, Bootstrap, JSON, REST

Career

Co-Founder and Software Engineer, Vyvygen, 2015-2017

- Assisted in prototyping and securing a proprietary, multi-material, high-temperature additive manufacturing system
- Prepared a technical and cost volume for a DARPA SBIR Phase I grant involving research into vulnerabilities in cyber-physical systems such as 3D printers
- Developed software in multiple languages for internal use, ranging from Python scripts to solve bugs in pfSense to Scala prototypes demonstrating Android compatibility
- Assisted in designing a peer-to-peer enterprise configuration management system
- Co-wrote other technical documentation, including a white paper
- Assisted in administration of an IPv4/IPv6 dual-stack multi-OS Gigabit Ethernet network
- Spearheaded research and development, including choice of internal tooling
- Prepared presentations evaluating company's suitability for available SBIR grants
- Managed corporate finances and prepared state and federal 1120 tax forms
- Completed necessary paperwork for startup to be registered as a US defense contractor and other administrative tasks as needed

Projects and Freelance Work

- **Freelance:** Write in-depth tutorials about using Elasticsearch with Rust and Python as a Technical Content Writer for Qbox.io
- Spine Classifier (**Python**) Web app to extract text from photos using OpenCV and Tesseract
- Parallax (**Scala**) Cryptographic hash function using Futures
- Rocket-dogstatsd (**Rust**) Tutorial on sending Rust web server metrics to Datadog using DogStatsD
- NTPSet (**Java**) Android app to pull NTP server information from the device's DHCP server
- Bioxide (**Rust**) Added Hamming distance function and unit tests to bioinformatics utility
- ThinkDiagnostics (**Python**) Collect info on ThinkPad hardware for diagnostic purposes
- GPUNet (**Scala**) Set fan speed based on Nvidia GPU temperature
- Emitime (**Rust**) Implemented WAV file generation logic for WWVB time signal emitter
- Simcrypt (**Python**) Helped design command line simulation of the Enigma Machine
- **FOSS:** Contributed to Exercism and the Rust Book

Education

B.A., Yale, History, 2012 (GPA 3.76), distinction in the major

Scholastic Awards

Robert E. Gries Prize, Yale, 2012 (best undergraduate essay in non-Western history)

John E. Linck and Alanne Headland Linck Fellowship, Yale, 2011

Sunrise Foundation Travel Grant, Yale, 2011