

Paul Nion Vestergaard Larsen

✉ pnvlarsen@gmail.com | 🏠 pnvlarsen.me | 🌐 PaulSonOfLars | 📺 paul-nion-vestergaard-larsen

About Me

- I am an energetic, driven, and insatiably curious engineer with a self-starter attitude, and am always looking for the next problem to solve. I am also a team player, proactively engaging and communicating with my team to ensure a structured and flexible workflow.
- International upbringing - born in the UK to European parents, I am fluent in English, French, and Danish (hold all 3 passports). Also learnt basic Russian in secondary school.
- **Personal projects:**
 - Free Telegram group management bot with 400+ million global users, receiving 55+ million messages daily. Helps moderate large group chats by augmenting telegram's native moderation features. (golang)
 - SaaS platform for custom instances of the aforementioned Telegram bot, allowing for additional features, reduced limits, and increased customisation. (golang, react, kubernetes, digitalocean, hetzner, stripe)
 - Open source auto-generated Telegram bot API library. Generated from the telegram documentation, to create a library which matches the documentation exactly. (golang)
 - Precursor to the above mentioned golang bot. At time of sunseting, was serving 5 million+ users. (python)
 - More projects available on GitHub.
- **Social activities:** bouldering, freediving, sailing, surfing, and swimming. I also love to read, travel, and try new cuisines.

Experience

Unlikely AI — Symbolic approach to general AI, founded by the founder of Alexa

London, UK

SOFTWARE ENGINEER — MANY HATS

January 2022 - August 2022

- Migrating the internal infrastructure to infrastructure-as-code. (terraform, AWS)
- Improving dev workflows by speeding up local environment startup time. (bash, docker)
- Working on the various internal microservices. (java, guice, spring boot)
- Maintaining and improving the internal-only frontend used for interacting with our services. (react)
- **Technologies:** Primarily java, AWS, bash, terraform, docker, guice, spring boot, react.

Improbable — Distributed gaming and simulations, backed by SoftBank's vision fund

London, UK

SOFTWARE ENGINEER — ENGINEERING VELOCITY/DEVELOPER EFFECTIVENESS

September 2019 - November 2021

- Started in a graduate role, left as lead to a team of 5 engineers.
- Analysing and improving developer workflows, strongly valuing human time over machine time to improve productivity.
- Building company-wide CI infrastructure to provide a scalable cloud CI platform to all engineers. (golang, buildkite)
- Developing solutions for running cached and containerised CI jobs - improving reproducibility through infrastructure as code.
- Implementing internal macOS infrastructure to provide containerised macOS CI agents. (bash, ansible, anka)
- Upgrading and rewiring the existing terraform setup to make use of modules, reducing duplication.
- Introducing a new Prometheus-based alerting stack to improve metrics and observability over our kubernetes clusters.
- **Technologies:** Primarily golang, kubernetes, docker, bash, python, terraform, ansible, buildkite, GCP.

SOFTWARE ENGINEERING INTERN — INFRASTRUCTURE

April 2018 - September 2018

- Working as a part of the infrastructure team to create and maintain developer tooling across the company. (golang)
- Upgrading the build system to support remote caching and building. (bazel)
- Optimising code review processes by leveraging static code analysis tools to reduce PR cycle time. (golang)

Shazam (now Apple) — Music recognition services

London, UK

SOFTWARE ENGINEERING INTERN — INFRASTRUCTURE

July 2017 - September 2017

- Introduced to Docker, Kubernetes, and Puppet in production environments, on both GCP and AWS.
- Working with Splunk to create live dashboards of critical services, improving observability
- Implementing and delivering a Machine learning solution for predicting future top 10 songs in the charts. (Patent Pending)
- **Technologies:** Primarily python, bash, splunk, puppet.

Education

Imperial College London

London, UK

2:1, MEng in Computing

September 2015 - July 2019

- **Noteworthy projects:**
 - **4th year thesis:** *Alexa, open their front door: Multi-modal security for Smart Home Voice Assistants.* A novel dissection of common flaws in smart assistants, exposing multiple attack vectors, with possible defences. Received a high first.
 - **3rd year project:** Whiteboard live coding. Live handwriting recognition tool to augment interview whiteboarding sessions. Final implementation involved custom neural networks and extensive post character recognition code fixing, with an option to project results back on the whiteboard. Awarded 90%+ grade.
- **Overall:** Strong experience with Golang, Python, Bash, Java. Capable in SQL, Haskell, C, C++. Some experience with various assembly flavours, Prolog, HTML, CSS, and Javascript.
- **Societies:** Heavily involved with the surf society, going on multiple trips yearly. Also contributed to the Scandinavian and wine tasting societies.