Henk-Jaap Wagenaar

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Employment

Software Development Engineer III **Zapp** (VC SaaS B2C, remote), 2022–present
Fast grocery delivery
– Enforced zero downtime deployment of the service (Django) by setting up CI/CD to test the transition where database and app are out of sync[1]
– Tackled "N + 1" made worse by the interaction of ORM (Django) and GraphQL (Graphene)

Senior Engineer **Lantum** (VC SaaS B2B + B2C, remote), 2021–2022
Healthcare rota and marketplace
– Naturally became the leader for incidents
– Set best practices and mentored engineers new to Django
– Tackled "$N + 1$" problems inside Django services but also for traces across services
– Consolidated the 30 microservices to increase reliability and improve development experience
– Fixed half-baked eventual consistency with outbox pattern
– Owned the GraphQL + Apollo middleware after the only expert left

Full Stack Engineer **Journo Portfolio** (bootstrapped SaaS B2C, remote), 2020–21
First employee at established profitable portfolio/website builder
– Customer service, road mapping, product, design and operations
– Set up provisioning using Ansible for the and containerize the app
– Re-architected the Varnish cache infrastructure and LetsEncrypt certificate renewals
– Reworked product from the ground up to support include customer requested features (e.g. multi-column layouts) and reduced customer friction (e.g. live editing)

Full Stack Engineer & Co-Founder **Carchargo** (bootstrapped SaaS B2C), 2019
Electric car chargers marketplace
– User journey implemented from apps (React Native), backend (Django) to marketplace payment (Stripe Connect)

Quantitative Developer **High Contrast Investments** (VC Hedge Fund), 2017–2018
– Ingesting and harmonization of data to MongoDB and using Luigi combined with scatter-gather
– Wrote tools to deal with dependency, release and test management for many layers deep of internal libraries released to self-hosted Python package management

Engineer **Cambridge Consultants** (B2B), 2015–2017
Multi-discipline product technology development
– Designed and implemented in a team the hardware and software for a robot that makes steak and fries[2] using Python, ROS, OpenCV, C++ and many others

Fixed Income Research Team Intern **AHL/MSS, Man Group** (Hedge Fund), 2014
Trading strategy analysis in Python investigating the bond curve

Education

Peterhouse, University of Cambridge 2011–2015
Master of Mathematics, Bachelor of Arts with Honours, First Class

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[1]See: https://cheigh.me/blog/posts/2022-05-10-enforcing-zero-downtime-django-migrations.html
[2]Video: https://www.facebook.com/watch/?v=217347006123523

"Hacking"

– Started programming very young when brother taught QBasic and later C before transitioning to Python 2.5 as an autodidact to solve problems on Project Euler

High school laid foundation in web technologies like HTML, CSS and Javascript, relational databases/SQL and object-oriented programming in Java

At university used C++, Matlab, APL, R and of course, when possible, Python
– Ran the automization effort for Cambridge '99 Rowing Club which took their **Google Sheets** and improved them based on user feedback and needs
  – Linked spreadsheets together and having single source of truth
  – Used **GoogleScript** to run regular jobs like creating the weekly booking sheet, updating data from external source, . . .
  – Integrated with external data source that did not have APIs like the national governing body race licence membership requiring reverse engineering

This system has been running for many years with minimal maintenance and has saved **hundreds of hours of volunteer time**
– Contributions to open source:
  – Fixed import logic relating to resolving symlinks eagerly in CPython
  – Fixed same import logic via monkeypatch in pytest for older versions of Python
  – Improved documentation in CPython
  – Allowed spaces between command line options and their value in configuration for tox
  – Fixed a config option in `setup.cfg` not being parsed correctly in setuptools
  – Pass `--no-input` to pip inside virtualenv as asking for input will result in failure anyway
  – Small fixes for Warehouse when it was getting ready to become the Python package repository (i.e. PyPi)
  – Add Kerberos support for pip—pending
  – Improve test scheduling in pytest-xdist—pending
– Set up an over-complicated home network
  – Root modem to monitor DSL connection
  – OpenWRT router to route DNS traffic to PiHole and improve contention using SQM
  – Ran PiHole to block e.g. advertising domains and use DNS over HTTPS (DoH)
  – Used LetsEncrypt to get proper HTTPS for admin interfaces

Activities

– Competed in rowing at college/university level and now compete as a lightweight club athlete and have represented England at international competition

Maintain our household fleet of boats, rowing machines and blades

Previously Captain at Peterhouse Boat Club and have coached athletes to success

Participate in non-competitive athletic events like triathlon (Olympic and Ironman distance) and runs (half marathons)
– Private tutor while in high school then worked for a prep-for-finals private crash course provider, did half a term as teaching assistant at Carnegie Mellon University (CMU) and supervised at University of Cambridge
– Student representative at faculty, school and university level at University of Cambridge

Involved in compliance having being Welfare (Safeguarding) Officer and then Safety Officer (including during the pandemic) at Cambridge '99 Rowing Club