

## A brief statement

I've been responsible for shipping software to customers and increasing the revenue of several large organisations as well as raising the bar on quality and time-to-market as well as leading large initiatives.

With a very solid and comprehensive technical background, I pride myself on being responsible for the most complex projects through the whole SDLC as well as writing first class comms and technical documentation. As a polyglot developer, I understand from first-principles and can adapt to various software stacks.

My values include integrity, sincerity, trust, and commitment; and I practice these by treating working relationships with a high regard by dealing with conflict within the team and offering my support and time to others.

## Professional Experience

2023-  SumUp – Senior Backend Software Engineer (Point-of-sale)

Fintech offering mobile payments and POS for the nano and small business segments

- Lead a multi-department API integration workshop for core services within POS so SumUp merchants can see their sales from all channels in the apps and on web. Unlocked the value of receipts, discounts, taxes, and fiscalization for online sales, kiosk, and payment links.
- Delivered support for various payout plans for merchants in Latin America. Significant because it allowed for rollout of sales domain / POS to >0.6m businesses and paves the way for the growth potential in this market for POS products in general.
- Increased the reliability of deployments and distributed systems by implementing gRPC connection draining of services and improving the load balancing of containers.
- Introduced novel approach to contextual logging across the distributed system in order to derive stats aid operations.

Keywords: Kotlin, Java, Cassandra, Kafka, AWS, Kubernetes,

2022-2023  Klima.Metrix GmbH – Senior Software Engineer

Carbon-accounting startup helping companies gain insight into their carbon emissions.

- Developed core calculation modules as well as the full software stack and supporting infrastructure for self-serve data upload, processing, and reporting.
- Drove engineering excellence by introducing trunk-based, test-driven development and greatly improved the deployment frequency in alignment with empirical evidence supporting reduced defects and increased velocity (Accelerate: Kim, Humble, Forsgren)
- Introduced pipelines to derive reference values from datasets in reproducible fashion using Jupyter lab. (Interim calculations and the combination of multiple datasets are required resulting in a model.) Designed to be a self documenting methodology.
- Refactored legacy calculation code with BDD-style tests designed to be a readable specification for the data team & statisticians so that their knowledge and input regarding compliance with relevant standards and changes to procedure can flow between back and forth between the teams.

## Professional Experience (continued)

2021  Magentasoft Ltd – Contract

- Worked with Uphold improving their backoffice systems and implemented OFAC sanctions checks to comply with AML regulations.

2017-2020  Co-op Digital – Senior Software Engineer (Python/Typescript)

- Hired and mentored an apprentice software engineer via Manchester Digital
- Shipped hundreds of features across several award winning projects
- Developed multi-tenancy solution based on row-level-security
- Developed data pipelines to unlock BI from product
- Integration with Oracle Cloud HR system SOAP

2016-2017  Beautiful Destinations – Software Engineer (Haskell)

Systems role at travel & tourism marketing startup.

- Learnt Haskell/GHCJS as this was used heavily for enforcing type-safety across the front-end-back end. Haskell and FP remain influential and encouraged me to learn Haskell proper as well as study Category Theory in my spare time.
- Delivered scalable, asynchronous, queue based solution to speed up machine learning processing in production.
- Developed a Docker-based functional test suite with screen recording of the test execution utilizing ffmpeg and virtual frame-buffer.
- Developed CI/CD pipelines
- Contributed to custom Shake-based build system

2016  Liberal Democrats – Contract Developer

- Developed a polling station finder for the Liberal Democrat party in the run up to the UK Brexit referendum.
- Integrated with their website, email campaign and Google Analytics.

---

## Competencies / Skills

 Kotlin (inc. Coroutines, Functional Programming)

Attended a Kotlin Coroutines workshop with Macin Moskala, a leading authority on this topic. I also connect this experience with broader expertise and feel comfortable coaching other software engineers.

2021  K9-Mail

Implemented IETF RFC6186 to add automatic lookup of email servers from DNS records and thus improving the experience for users. (Kotlin).

## Open-source Contributions

2021  Linux Kernel (ALSA subsystem)

Developed device drivers in C for Pioneer audio mixers with USB interface by reverse engineering the DJM-750 control transfers. I reached out to others on the Linux mailing list and added support for 2 further devices in the same family.

2021  K9-Mail

## Open-source Contributions (continued)

Implemented IETF RFC6186 to add automatic lookup of email servers from DNS records and thus improving the experience for users. (Kotlin).