Christopher Smith

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EXPERIENCE

nakedwines.com Limited remote/Norwich, United Kingdom

SENIOR MOBILE DEVELOPER AND PRODUCT COACH Mar. 2021 – present

Senior mobile developer hired to help scale mobile development across three countries and coach development teams in a cross-functional product approach.

- **Flutter app development**: Product driven development of a **large e-commerce mobile application** used by 6,000 daily users. **BLoC** and **provider** underpinned robust state management in a highly modular, decoupled and scalable codebase. Tackled modernisation through gradual, well communicated refactors.
- **Product leadership**: Championed **story mapping** and **inclusive product approach** within teams, led and facilitated discovery workshops. Obtained **validated learning** through several iterations on a complex subscription product, building a backlog and planning sprints by **story mapping** with the whole team.

Fictioneers Limited Bristol/Cardiff/remote, United Kingdom

SENIOR SOFTWARE ENGINEER, TECH LEAD Jan. 2019 – Mar. 2021

As an experienced software engineer in a fledgling startup company I helped establish an effective, cross-functional product team and led the development of an ambitious cross-platform mobile app.

With UKRI (UK Research and Innovation) funding as part of the **Audience Of The Future programme**, Potato embarked on a joint venture with two other companies. Our brief was to research and develop an immersive storytelling experience that utilises augmented reality technology.

We partnered with Aardman Animations to build the "**Big Fix Up**" a new Wallace and Gromit story with original animated shorts, interactive AR experiences, comics and gameplay delivered via an Android and iOS app.

- **Flutter UI framework**: Rapid prototyping and development of the *Big Fix Up* Android and iOS app. Scalable native app development with a single language and **reactive, declarative UI framework**. Robust **Redux** architecture powers **immutable state transitions** and application lifecycle.
- **Microservices architecture**: Built with **modern, typed Python** using **FastAPI** and **Pydantic**. Functional paradigm utilizing toolz, generators, immutable types and Reactive Extentions (RxPy). **Google Cloud**, **AppEngine**, **Datastore** and **Firestore**. Containerized local developement with **Docker**.
- **Automated CI/CD**: Across backend, mobile Flutter/Unity project stack. Distribution to early adopters.
- **Discovery**: Led research and ideation through prototypes and validated technology through early tests.
- **Product leadership**: Led and facilitated **story mapping** in a diverse cross-functional team. Transformed an ambitious product vision into compelling user stories and a functional product backlog, sliced into validated deliverables. Empowered individual leadership and drove shared understanding.

- **Coaching**: Facilitated **mentoring and skills building**. Supported people with web backgrounds to become confident and adaptive mobile developers. Investing in potential and **bridging prior experience**.
- ***Key technologies***: ***Dart***, ***Python***, *C#, Obj-C, Swift, Java,* ***Flutter***, *iOS, Android, Unity,* ***Google Cloud***.

Potato London Limited — Bristol/London/remote, United Kingdom

DEVELOPER — Mar. 2016 – Jan. 2019

Potato is a leading London/San Francisco digital product agency. Their high profile clients include Google. **As an engineer I led the development of robust and highly scalable web applications**.

The projects ranged from marketing sites with complex sales funnel integrations to events management applications and booking microsites with traffic driven by global Google homepage promotions.

I led cross-functional product teams, alongside design leads, focused on validating hypotheses through early prototypes and MVPs. We established value for users and cut out waste.

- **Backend web development**: Microservice backend systems built to tight deadlines. Applications using **Google App Engine** and **Datastore** built to scale beyond 1000 requests-per-second. Experience with **Docker**, Kubernetes, **gRPC** transport, auth standards including OAuth2, JSON Web Tokens and PKI.
- **Frontend web applications**: Modern declarative UI and state management frameworks including **React/Redux**, **Vue/Vuex**, server rendered **isomophic apps with Nuxt**. Secure against XSS and MITM using strict Content Security Policy and HTTPS by default. Experience with Typescript and ClojureScript.
- **Streaming architecture**: Experience developing lightweight analytics data processing backend, unifying multiple services, using Google **Pub/Sub**, AppEngine, Redis and **BigTable**.
- **Test driven development**: Strong experience with unit and functional testing, mocking and data generation. Critical to protect against regressions in several large team, multi-stakeholder projects.
- ***Key technologies***: ***Python***, *JS/NodeJS,* ***Google Cloud***, ***AWS***, ***Docker***, ***Kubernetes***, *Django, FastAPI.*

CERN — Geneva, Switzerland

TECHNICAL STUDENT — Jul. 2012 – May 2013

Joined **datacenter procurement operations** team and helped create an automated server installation, testing and benchmarking framework written in Python. This automated previously difficult parts of the tender process.

Hosted inside a network boot linux image, the framework was used to remotely verify the performance of large deliveries of compute servers (up-to 500 at one time) as soon as they were connected to the network.

- **Log streaming architecture**: **Logstash, Elasticsearch and Kibana** used in benchmarking framework to collect, process and analyse log events from new servers in real-time. Could detect hardware failures and batch-wide performance degradation against sample systems, producing reports used in warranty claims.
- **DevOps**: Used large-fabric management tools, including **Puppet**, to orchestrate software deployments and setup across thousands of server nodes. Gained considerable Linux sysadmin knowledge and experience.
- ***Key technologies***: *Python, Perl, Ruby, Bash, RHEL, Puppet, Splunk, Elasticsearch stack, CouchDB.*

EDUCATION AND PERSONAL STUDY

University of the West of England — Bristol, United Kingdom

BSC (HONS) COMPUTER SCIENCE, 2:1, ARTIFICIAL INTELLIGENCE SPECIALISM — Sep. 2010 – Aug. 2014

My course focused on bio-inspired AI and machine learning throughout. From it I understand a wide variety of ML models and how they're applied to classification and regression problems.

I can appreciate the complete lifecycle from design, training to operation. I understand the challenges of finding effective representations for natural language applications, monitoring efficacy, AI UX and adverserial AI.

- **Genetic algorithms**: Interest in genetic algorithms as a tool for robust global search and optimisation. Studied uses in electronics, manufacturing, initialising neural nets and genetic programming. **Developed web worker, ClojureScript implementation** that runs in the browser at **funkyrobot.net**.
- **Data science and machine learning tools**: Experience using **TensorFlow** via **Keras** in Python. Using **NumPy**, **Pandas** and **NLTK** in **Jupyter** notebooks to explore and transform data and train models.