

Elie Ben-Shlomo

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PERSONAL PROFILE

Engineering lead with a background in mathematics. History of building data intensive, event driven, scalable systems. Experience spans realtime cloud infrastructure, machine learning platforms, and quantum computing R&D, working across both research and production environments.

EDUCATION

University of Cambridge
Mathematics - 2:i

2018

WORK EXPERIENCE

Bosonic Quantum Devices | Quantum Computing Software
Lead Software Engineer

Nov. 2025 -
London, UK

- Research and development on **distributed quantum computing (DQC)**, focusing on compilation, simulation, and execution across heterogeneous quantum systems
- Developing **high performance simulators** for distributed quantum systems, enabling protocol validation and architectural exploration in the absence of large-scale hardware
- Community outreach engaging with researchers and PhD students to incorporate SOTA quantum algorithms into our SDK
- **OSS community development** on distributed quantum software (<https://github.com/dqc-community>)

Relay | Delivery Network Logistics
Staff ML Engineer

Jul. 2025 – Oct. 2025
London, UK

- **Building ML pipelines** to train, evaluate, and deploy models, hosting productionised models. Automatic handling of model versioning, error catching, and type safety. Realtime model monitoring (eval metrics, data/feature drift) with dashboards and alerting.
- Working **directly with stakeholders** across DS, Eng, and Product to architect project timeline, from model design, EDA, implementation, and productisation, managing project value, risk and lift.
- Reviewed and integrated third-party **feature-store** ([ChalkAI](#)) into ML platform for rapid feature retrieval.

Sky | Personalisation
ML Engineer

Apr. 2023 – Jun 2025
London, UK

- **Empowering Data Science at scale:** designed and built Sky's **Feature Store** - a centralized repository of user defined features to be ingested into ML models across the company - ensuring efficient, low-latency feature engineering & retrieval for machine learning models that drive personalized user experiences. Operating at massive scale under the 2024 Paris Olympics and US Super Bowl (30M concurrent users).
- **Realtime Feature Engineering + Serving:** ingesting terabytes of data from hundreds of pubsub topics into a scalable k8s cluster where user defined features are engineered from time-series data (**p99 < 500ms**). Also designing a high-throughput, low-latency online store that enables models to access relevant features efficiently, minimizing serving costs and maximizing prediction accuracy. (**p99 < 25ms**)
- **Scaling ML Systems:** Architecting distributed data pipelines and optimizing feature ingestion using modern big data frameworks like BigQuery, BigTable, Dataflow and VertexAI.
- **Cloud Infrastructure:** architecting and maintaining scalable GCP microservices to ingest massive quantities of data while remaining resilient to outages. Built a graphing and alerting system via Prometheus, Grafana, and Sky's internal callout system.

BrightRide | Network Analysis & Productivity Enhancement
Full Stack

May. 2022 – Apr. 2023
Remote, USA

- Designing social graphs to measure company interaction vulnerabilities and improve team dialogue.
- Temporal network analysis to detect communication inefficiency, developer overload, burnout, and silos.

- Jira, Github, & Slack integration to analyse communication graphs and return customer metrics.

dotData | Automated End-to-End Machine Learning

Nov. 2019 – Jul. 2022

Backend + ML

San Francisco Bay Area, USA

- Building and maintaining a concurrent, distributed system for Big Data ETL - preprocessing, training, validating, and predicting models with terabytes of customer data.
- Automated feature detection and engineering from customer relational databases.
- Automated model design and selection to produce client-tailored accuracy metrics.
- Business logic for high-frequency data processing requests. Data connectors for supporting large customer data stores. RESTful API development and maintenance. Integrating SSO security protocols.
- Database design and optimization to improve reliability and massively decrease latency.

Living Map | Indoor Positioning & Digital Mapping

Sept. 2018 – Sept. 2019

Full Stack

Bristol, UK

- Developing an indoor positioning system for mobile devices from inbuilt device sensors, using Kalman Filter Sensor Fusion to integrate Wifi, Magnetism, GPS, and Acceleration.
- Backend API development to send live data from mobile devices to remote databases and transmit stored data to JS frontend for live visualization.
- Innovative R&D reading cutting-edge research papers and drafting implementation proposals.

Tech Stack

- **Eng:** Python, Typescript, Java, Scala SQL, Qiskit (quantum)
- **DS:** pandas, numpy, scikit-learn, keras, matplotlib
- **MLOps:** Vertex AI, Kubeflow, Dagster, MLflow, Prometheus, Grafana
- **Cloud infrastructure:** GCP; Terraform, BigQuery, BigTable, Kubernetes, Pub/Sub, IAM, Dataflow, Redis, Cloud Run/Scheduler, etc.
- **Backend:** Postgres, nodejs, flask, Play, http & gRPC server/clients, streaming (Akka), auth (OAuth2, JWT)