

# GEORGE FIELD

Backend Software Engineer

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## KEY STRENGTHS

- 7+ years of professional engineering experience
- Experience with scalable serverless microservices
- Keen interest in optimisation and code quality
- Passionate about mentoring and leading

## KEY TECHNOLOGIES

Golang MySQL AWS Elasticsearch  
Containerisation Serverless Terraform  
OpenTelemetry Linux Redis Node.js  
protobuf gRPC

## EXPERIENCE

Golang Developer

December 2020 – Present

Haarlem, Netherlands

**BookerZzz**

- Implemented and maintained Go microservices providing search, content management, web frontend and 3rd party inventory sync functionality serving around 1.5 million requests per day.
- Worked with a variety of storage backends including MySQL, Aerospike, Redis, Elasticsearch, and Amazon S3.
- Implemented a microservice abstracting connections with large external inventory suppliers, payment providers and internal back-office systems to provide over 200,000 additional room options to customers.
- Contributed significantly to modernisation and overhaul of a price and availability search system utilising OpenSearch and Go, including leading a project for a high-performance ranking system for hotels and rooms.
- Undertook major refactoring in an existing project to introduce *dependency inversion* and a high coverage suite of unit tests, running automatically in *GitHub Actions*.
- Introduced *OpenTelemetry* based instrumentation to the company for greatly improved observability.
- Used *pprof* to diagnose and solve memory and cpu-based bottlenecks; fixing a long-standing OOM condition.
- Optimised SQL queries and indexes definitions to improve load-times of website content from the in-house CMS.
- Mentored junior developers on Go, SQL, and continuous testing best practices.

Full Stack Developer

September 2016 – November 2020

Bath, United Kingdom

**Netcraft**

June 2015 – September 2015

- Senior developer on a large automated abuse reporting and monitoring system written in *Perl*, *PHP*, and *Node.js*.
- Implemented backend services in Go interfacing between MySQL, MongoDB, and HTTP APIs.
- Delivered a large screenshot capturing service using *Node.js*, *Puppeteer*, and *Headless Chromium* for browser automation and rendering, distributed across multiple servers for high throughput.
- Led a team of 4 developers creating *Node.js* microservices for browser malware analysis.
- Performed penetration tests for third-party web applications.
- Directly supervised and mentored small groups of junior developers (1 - 4 people).

Summer Research Student

June 2014 – September 2014

Bristol, United Kingdom

**MAGEEC Project, University of Bristol**

- Implemented benchmarks in C for AVR microcontrollers to evaluate GCC optimisations for energy efficiency.

Teaching Technology Developer

June 2013 – September 2013

Bristol, United Kingdom

**Build-a-Comp Project, University of Bristol**

- Used *KiCad* to design a physical system for the teaching of computer architecture to undergraduates.

## EDUCATION & CERTIFICATION

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MEng. in Computer Science (First Class Honours)

**University of Bristol**

📅 October 2012 – June 2016

📍 Bristol, United Kingdom

Prizes:

- Best MEng. Research Project of the Year 2016
- Top 10 Second Year Students in Computer Science or Computer Science and Mathematics 2014
- Top 5 First Year Students in Computer Science or Computer Science and Mathematics 2013

Major Projects:

- A *Python* test bench utilising BDI agents for the automated testing of simulated autonomous robots.
- A system for the scanning of a real world play area for import into Unreal Engine 4 built using *C++* and *OpenCV*.
- A *Node.js* REST API server for collecting images to contribute towards citizen science projects.

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 **AWS Certified Cloud Practitioner**

📅 October 2022

## VOLUNTEERING & PERSONAL PROJECTS

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Engineering Mentor & Coordinator

📅 October 2012 – May 2015

📍 Bristol, United Kingdom

**Student Robotics**

- Mentored sixth form students (16-18) taking part in the annual Student Robotics competition.
- Regularly visited local schools to assist students in the design, construction, and implementation of fully autonomous robots controlled by Python running in an embedded Linux environment.
- From 2014, I took on the role of branch coordinator, scheduling mentoring sessions, managing recruitment, and organising events for local schools.

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System Administrator & Co-Founder

📅 2010 – 2013

📍 Remote

**Ultimate Minecraft**

- Administrated cloud-based *Linux* servers, game servers, a *PHP* based website, and InspIRCd chat.
- Built bespoke supporting services, including *Java* based game modifications, regular automated backups, and remote administration tools allowing volunteers to perform basic tasks without providing shell access.

## REFEREES

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References available on request.