Chris Hopkins

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WORK EXPERIENCE

Junior Software Engineer, British Broadcasting Corporation (BBC), Hybrid/London

Sept 2021 - Today

- Developed multi-variant testing transformations including a developer override mechanism. Providing a significant contribution to the department-wide effort to enable MVT testing, bucketing over 260K users at time of writing.
- Produced, deployed and tested the smart circuit breaker, dramatically increasing the resiliency of all downstream products, while ensuring users have the freshest pages from an almost unavailable origin.
- Built the traffic repeater service which fires as much as 10,000 RPS of realistic traffic at our test environment. This is critical as it enables us to spot bugs early before we deploy to live.
- Planned and executed the implementation of a new stack taking routing, caching and telemetry into account. Meaning we could begin decommissioning our legacy stack, decreasing our costs by 17% so far.
- Engineered an extensive overhaul of our AWS X-Ray client, implementing a completely asynchronous paradigm, which led to entirely removing X-Ray based IO blocking operations.
- Coordinated effectively with multiple teams for a feature flag release resulting in a new pan-BBC page component, which I facilitated from implementation to live release.

Associate Software Engineer, British Broadcasting Corporation (BBC), Remote

Sept 2020 - Sept 2021

 Single-handedly created an Elixir service to orchestrate configurable load tests that can integrate with Jenkins and AWS Codebuild. This cut load test setup time by over 50% and dramatically improved developer experience.

Software Engineering Intern, British Broadcasting Corporation (BBC), London

Sept 2019 - Sept 2020

- Collaborated with the elections team to deliver a control mechanism for the general election results banner in our Ruby microservices. This ensured they had robust release and mitigation abilities, contributing to a successful election.
- Diagnosed a crippling latency bug through load testing, produced a formula grounded in the load test results to overhaul the HTTP pool worker configuration in our Elixir service, culminating in total elimination of additional latency.

Intern, Smart Technology Solutions, London

June 2018 - July 2018

• Independently developed a Java prototype using Spring Boot, demonstrating integration between their invoice API and a 3rd party payment collection platform, resulting in the potential for a delayed payment service offering.

SKILLS

Languages: Elixir (Fluent), Python (Fluent), HTML/CSS, JavaScript, Ruby

Technologies: AWS (EC2, S3, Cloudformation, X-Ray, Codebuild), Phoenix, TailwindCSS, TensorFlow, scikit-learn

EDUCATION

BSc in Computer Science (first class), Swansea University, UK

Sept 2017- June 2021

PROJECTS

RingTMP (https://github.com/chrishop/bachelor-dissertation-supporting-code)

• A Ring Topological Model Parallel Neural Network made in Elixir from first principles, using the Matrex library.

Francis (https://github.com/chrishop/francis)

Created a Neural Network using TensorFlow to identify 6 different bird songs, with an accuracy of over 90%