Brice Fernandes October 31, 2022

Summary

A polyvalent and versatile senior leader capable of delivering software systems in complex and demanding environments, experienced in every aspect of the Software Development Life Cycle. Adept at technology strategy and communication. Key Achievements include being a founding coach on the University of Cambridge Judge Business School Startup Accelerator programs and foundational contributions to the GitOps methodology.

Contact Information

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English, French

Skills

LEADERSHIP & MANAGEMENT: Customer Experience, Site Reliability engineering, Agile principles (Scrum, Kanban and Extreme Programming practices), SaaS, Software services operations, Lean production, Lean software development, R&D leadership, Technical training and skill assessment, Full product development life-cycle, Delivery and operations, Data protection, Business modelling, Systemic innovation.

PLATFORMS: AWS, Azure, GCP, Cloud Native, GitOps, Multi-cloud, Hybrid Cloud, Kubernetes, Docker, Prometheus, Grafana, Unix (GNU/Linux) administration, Virtualisation with VirtualBox and VMWare.

SOFTWARE DEVELOPMENT: Functional Programming, Python, Javascript (ES6, React, Vue, NodeJS, Babel), Scheme, Clojure, Jython, Java (OpenGL in Processing, GUI), Shell scripting (Bash), DVCS (Git, Mercurial), C, F#, C#, Go, Unit Testing, Regular Expressions, Test Driven Development, RDF, Unity3D game engine, Firebase, Natural language processing (NLTK), Numpy and Matplotlib (MATLAB equivalent), Python Imaging Library (PIL/Pillow), Glib, GTK, Imagemagick, SNMP, HTML, CSS, Less/Sass.

Certification

AWS Certified Solutions Architect - Professional
AWS Certified DevOps Engineer - Professional
AWS Certified Machine Learning - Speciality

AWS Certified Security - Speciality

Valid to October 2025

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Education

The University Of Sheffield BSc. Physics with Computer Science

2006 - 2010

Publications

The Evolution of Complementary Cognition: Humans Cooperatively Adapt and Evolve through a System of Collective Cognitive Search.

Taylor, H., Fernandes, B., & Wraight, S. (2021). Cambridge Archaeological Journal, 1-17. doi:10.1017/S0959774321000329

Selected Talks

SRE Best practices

October 2020

<u>Video</u> available

Delivering Quality at Speed with GitOps

August 2019

Video Available

Using and Abusing Ruby For Computer Science Great Good

March 2017

Code and slides (PDF) available.

More talks available on fractallambda.com

Relevant Experience

DevOps Practice Lead at Capgemini

January 2022 - current

Lead the DevOps practice for Capgemini UK Digital Customer Experience (DCX). Focused on sales and proposition development, aligning product, service and capability with both clients, market units, and other delivery areas in DCX and beyond. Owned the technology radar and external thought leadership for DevOps practice within the DCX delivery unit.

KEYWORDS: Senior Leadership, Architecture Leadership, Delivery Management, Digital Transformation, Training, Recruitment, Product Management, Capability Management

Senior Solution Architect at WeaveworksSeptember 2018 - September 2021 Architected, developed and delivered hybrid cloud application platforms for some of our most high profile clients, including in multiple regulated industries. Responsible for both project technical leadership and client relationships.

Worked on all aspects of commercial engagements, from pre-sales to delivery management. Was responsible for the design and delivery of GitOps and Cloud Native training for clients and partners.

Key experience:

- Provided architecture consultancy for internal application platforms to global banks
- Led the design and architecture of the internal application platform to support the autonomous vehicle project of one of the world's largest company
- Led the initial design and architecture workshop for the re-platforming effort of a large European telecommunication provider
- Defined the principles of GitOps
- Trusted key-holder for critical internal systems
- Designed and implemented customer experience playbook
- Designed and delivered public and private Cloud Native training

KEYWORDS: GitOps, Customer Experience, Delivery management, Kubernetes, Cloud Native, Pre-sales engineering, Monitoring, Observability, Digital transformation, SRE, Training, Recruitment

Senior Development Engineer at Weaveworks September 2017 - September 2018 Developed Go tools for managing Kubernetes. Helped define the GitOps methodology and communicate it to the developer community. Presented GitOps to conferences in the UK and internationally and delivered training on Kubernetes and GitOps. Member of the on-call engineering team directly responsible for the uptime and maintenance of our online SaaS platform.

KEYWORDS: Kubernetes, GitOps, Cloud Native, Prometheus, Terraform, Go, On-Call, Incident response, DevOps, SRE, Developer Experience, Training, Recruitment

Founder at Decacoder

October 2015 - January 2017

Founded an online education company delivering high quality online education to developers via a custom platform. I led the development of a scalable media delivery platform from scratch while also being responsible for all other business areas. I also set up a continuous integration and continuous deployment pipeline using AWS services, and was responsible for the educational design and user experience of all students using the platform.

KEYWORDS: Product development, Leadership, Javascript, ES6, React, Babel, Firebase, Continuous integration, Continuous deployment, AWS, Gulp, Stripe, Education, UX

Startup Mentor & Founding Coach, Accelerate Cambridge

2013 - 2016

I was selected to be a founding coach and mentor for the University of Cambridge Judge Business School startup accelerator Accelerate Cambridge. I delivered a startup founder education curriculum and coached teams on product design, technology strategy, development process, team management, pitching for investment and clear communication.

Several of the startups I mentored received prestigious awards, including winning the Pitch@Palace competition.

KEYWORDS: Startups, Coaching, Business modelling, Pitching, Leadership, Investment, Technology Strategy

Instructor & Coach, Ignite Program

July 2015, July 2017

I was an instructor and coach for the University of Cambridge Judge Business School Ignite programme. The Ignite programme is a one week course aimed at transform existing early stage enterprises through high quality lectures and challenging workshops. I was responsible for leading workshops during the program, ensuring that each attendee adopted the knowledge shared into their business practice.

KEYWORDS: Startups, Education, Coaching, Leadership, Event facilitation, Business Modelling

Founder, Cambridge Programmer Study GroupJuly 2014 - December 2016 Founded the most active programming meetup in Cambridge, meeting twice a week to study computer science topics. Over two years we studied Machine Learning, Cryptography, Concurrency and Functional programming, amongst other topics.

KEYWORDS: Machine Learning, Functional Programming, Scheme, SICP, Neural Networks, Cryptography, Concurrency, Computer architecture, Compilers, Interpreters, Community building

Instructor, F# developer course

September 2015 - August 2016

Successfully kickstarted an online tutorial series on the F# programming language. Designed and delivered a curriculum that taught the real world applications the F# language and functional programming, including type-driven design.

KEYWORDS: F#, Functional Programming, Education, Screencasting, Kickstarter, Video production

Instructor, Unity3D Development Course

August 2014 - August 2015

Successfully kickstarted an online tutorial series on game development using the Unity3D game engine. Designed a curriculum to teach programming for game development in the C# language, including the fundamentals of computer science to a novice audience. The project was delivered over the Udemy.com online platform and reached over 100 000 students. The complete course was accredited for higher education credits and worth 10 European Credit Transfer System credits ($\sim\!\!10\%$ of an undergraduate degree).

KEYWORDS: Education, Unity3D, C#, Game Development, Screencasting, Kickstarter, Video production

Software Engineer, Cambridge Broadband

March 2011 - October 2013

Developed and maintained a wide range of software to enable and support a microwave backhaul product at Cambridge Broadband. Worked on cross platform graphical user applications, embedded C network management using SNMP, internal tools and existing product maintenance. Was also part of a process improvement team that re-designed the software and product development process for the company. Took responsibility for technical recruitment of C developers, drafting requests for quotes and selecting and managing contractors.

KEYWORDS: C, PPC, Embedded, Python, Linux, GTK, SNMP, Process improvement, Agile, RFQ, Recruitment

Intern, Intelligent Systems Research Laboratory

Summer 2010

Developed a Flow Based Programming framework to support an anomaly detection subsystem for the Intelligent Systems Research Laboratory at the University of Reading. Embedded Jython, Groovy, and Javascript programming languages in the Flow Based Programming Framework to enable application developers to work in their language of choice.

KEYWORDS: Java, Groovy, Jython, Flow Based Programming, Embedded languages, JVM, Distributed computing, Machine Learning, Clustering, Anomaly detection