

# ALEXANDER JAMES HOLYOAKE

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		<b>GitHub:</b>	ajholyoake		

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## RELEVANT EXPERIENCE

2020 – 2023	<b>Head of Site Reliability Engineering at Blockchain.com</b>	Infrastructure Architect; Project management; Managed team of 15
2019 – 2020	<b>Site Reliability Engineer at Blockchain.com</b>	Hyper-scalable infrastructure maintenance; self-service; systems architecture
2018 – 2019	<b>Backend Trading engineer at Blockchain.com</b>	Trading system maintenance in Kotlin; multi-venue execution; portfolio management
2017 – 2018	<b>Data Scientist at Stratagem Technologies</b>	Data Scientist modelling basketball games and designing trading strategies; regression; backtesting; trading infrastructure; order routing; market making
2014 – 2016	<b>Race Strategist at Mercedes F1 Team</b>	Data science & engineering; full-stack developer; web UI development for easy deployment; rapid, high-pressure decision making
2012 – 2014	<b>Performance Analyst at Caterham F1</b>	Data science; Lead developer
2007 – 2011	<b>Experimental Ph.D. in Applied Mathematics</b>	Data analysis; Bash, Matlab, C++, C experience to automate data collection; PIV; First-authored paper; Public speaking; Hardware Engineering
2009 – 2011	<b>Formula Student</b>	CAD; Design; Website; Team Management; Simulation; Sponsor Liaison
2005 – 2010	<b>Gentoo</b>	Used as main system including all packages compiled from source, kernel maintenance etc.

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## EDUCATION

2013 – 2015	<b>Various Machine Learning Courses</b>	Coursera, Cambridge Coding Academy workshop, Cranfield Operational Research
2007 – 2011	<b>Ph.D. in Granular Dynamics</b>	Department of Applied Mathematics and Theoretical Physics & Trinity College, University of Cambridge
2006 – 2007	<b>Master's Degree in Mathematics</b>	Trinity College, Cambridge
2005 – 2007	<b>Certificate and Diploma in Modern Greek</b>	Trinity College, Cambridge; scholarship
2003 – 2006	<b>First Class B.A. (Hons) in Mathematics</b>	Trinity College, Cambridge; scholarship for exceptional performance; Heilbronn Prize
2002 – 2003	<b>Sixth Term Examination Papers</b>	2 and 3 (Grade S - outstanding)
2001 – 2003	<b>6 A levels and 1 AS level</b>	all grade A
1996 – 2001	<b>14 GCSEs</b>	11 A* including English and German

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## TECHNOLOGY

<b>Salt</b>	Expert
<b>Hashistack</b>	Expert; Vault, Nomad, Consul, Consul Connect
<b>GCP</b>	Expert; Maintained full eco-system with 0-touch by developers
<b>Python</b>	Expert; systems programming, machine learning, extensive data analysis
<b>Matlab + MEX (C Extensions)</b>	Expert; data processing, image processing, calibration routines and non-linear PDE solver (finite volume and spectral)
<b>HTML, CSS, Javascript</b>	Proficient; experience with Express, templating engines, REST interfaces
<b>C{,++} (Linux and Windows)</b>	Proficient; data acquisition and inner-loop Matlab routines
<b>SQL</b>	Proficient; MS-SQL, Postgres, MySQL, SQLite
<b>.NET</b>	Expert; core track data processing library, implementations of mathematical algorithms for use in other components
<b>Java</b>	Beginner; basic Android development, Computational Fluid Dynamics post-processing routines
<b>Go</b>	Beginner; hobby projects to play with concurrency features
<b>Office Suite &amp; VBA</b>	Proficient
<b>BASH</b>	Proficient
<b>L<sup>A</sup>T<sub>E</sub>X</b>	Proficient
<b>Operating systems</b>	Excellent knowledge of using and administrating Linux systems (Gentoo and Ubuntu) and Windows; also proficient with OSX (genuine and hackintosh)

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## PUBLIC PROJECTS

<b>Embedded GPS Logger</b> <a href="https://github.com/ajholyoake/adaloggergps">github.com/ajholyoake/adaloggergps</a>	Embedded C project to log GPS data on a Pi Zero to an SD card to study velocity, acceleration and altitude data for a dirt bike expedition
<b>Intranet Coffee Store</b> <a href="https://github.com/ajholyoake/coffee">github.com/ajholyoake/coffee</a>	Node.js, Express, HTML, IIS bootstrap project to centralize coffee ordering and to compile metrics
<b>Online GPS Tracker</b> <a href="https://github.com/ajholyoake/spot_tracker">github.com/ajholyoake/spot_tracker</a>	Python (Flask), Javascript, HTML page to update family and friends of location via a satellite tracker
<b>Graph Theory Animation</b> <a href="https://github.com/ajholyoake/percolator">github.com/ajholyoake/percolator</a>	Javascript, HTML single page for illustrating the concept of percolation in graph theory
<b>Home Automation</b>	Developing software to Raspberry Pi and The Next Chip for lighting, audio and data logging while home-brewing

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## OTHER SKILLS AND INTERESTS

<b>Physical Hacking</b>	Complete renovation and construction of a house; welding; car maintenance; barbeque design and manufacture; growing vegetables; home-brewing
<b>Languages</b>	Greek (degree level), German (intermediate), Spanish (intermediate)
<b>Driving</b>	Full driving licence (inc. motorcycles)