

# Jason Watson

Senior Fullstack Engineer | AI/ML, AWS & Scalable Systems

✉ [jason@mindsfck.net](mailto:jason@mindsfck.net)  
W [github.com/jasewhatson](https://github.com/jasewhatson)  
W [jasonwhatson.com](https://jasonwhatson.com)

## Overview

- Objective:** Senior engineer with 15+ years of experience spanning scalable cloud infrastructure, AI/ML systems, large-scale retail analytics, and fullstack product engineering. Experienced building high-volume distributed platforms on AWS, including personalization systems, data pipelines, and event-driven architectures. Currently focused on high-impact engineering, AI-assisted development workflows, and modern data-driven platforms. While not actively seeking a new role, I am interested in hearing about exceptional opportunities involving scalable systems, platform engineering, engineering output multiplication via agents, or applied AI.
- Personal:** Nationality: Australian Citizen • Open to remote, hybrid, or relocation opportunities globally
- Education:** Diploma of Software development (Distinction), TAFE NSW Ourimbah Campus (2006)
- Interests and activities:** Computer Graphics & Sound, AFL, Electronics, Surfing, Poker and Guitar
- Awards:** 2004 - Certificate of Merit, for highly commendable effort and achievement.  
2002 - Substantial and high results in 2002 Intel young scientist awards.  
1999 - AFL Terrigal/Avoca Club coaches award.

## Work Experience

**Metcash - Senior Backend Engineer** November 2022 - Current

**Senior Backend Engineer**

### Key functions & achievements:

- Applied AI/ML systems including data pipelines for personalized product recommendations at scale (1M+ users)
- Building scalable cloud-native systems using AWS, distributed services, and event-driven architectures
- Experience integrating recommendation engines including Amazon Personalize into production platforms
- Focus on AI-assisted software development workflows, test-driven development, coding agents, and intelligent automation
- Fullstack development across backend services, APIs, web, and mobile applications
- Designing scalable backend infrastructure, platform integrations, and high-volume data processing systems
- Interested in the future of AI-native software engineering and developer tooling
- Working with modern cloud infrastructure, automation, and data-driven product systems
- Data engineering, large-scale retail transaction analytics, and data insight analysis

**Technologies used:** Amazon Personalize, Golang, Python, Postgres, Redshift, AWS Lambda / Serverless.com, Terraform, AWS Athena / Apache Hive, DuckDB, OpenCode, AWS Bedrock, Event-driven cloud architecture, OpenAPI Spec, Auth0, Grafana

More info: <https://www.metcash.com>

**Macquarie Group - via FinXL IT services** 11th May 2021 - 9th September 2022

### **Contract**

#### **Key functions & achievements:**

- Develop cloud infrastructure using AWS CloudFormation (infrastructure as code) in an agile environment
- Deploy & manage infrastructure through SDLC & deployment pipelines in production without any downtime or service disruption
- Develop code to be run in a highly security focused environment & resolve potential security concerns from audits
- Integrate various corporate systems via a service-oriented architecture & REST API's for IT Service Management operations
- Manage relational database services (MySQL & Postgresql) via RDS
- Build working relationships with business stakeholders such as Business Analyst's and Project Manager's to deliver best practice solutions in a highly regulated financial environment
- Produce and maintain highly accurate technical documentation via Confluence
- Acquire insight and experience with the daily operations of an extensive (A\$737 AUM) global financial services group providing many financial products & solutions

**Technologies used:** AWS + CloudFormation, Azure, Continuous Deployment Pipeline's, Powershell, Bash, Linux, Git, Active Directory, Splunk logging, Apache JMeter

More info: [Macquarie - Corporate Operations Group](#)

**WhiteCoat - via Opus Recruitment** July 2020 - September 2020

### **Golang, iOS & Android development | 9 week Contract**

#### **Key functions & achievements:**

- Debug and fix outstanding bugs/issues for one of the company's MVC web apps, written in Golang
- Document 'maintenance & operational' processes for the web app, as handover to the full time team
- Debug an issue related to push notifications not working on older Android devices, within the apps Android project
- I was tasked with delivering major milestones for the company's iOS app written in Swift. Adding new screens and functionality to the iOS app, as well as integrating into 3rd party API's such as the Australian Gov's ABN lookup
- Working remotely via Slack, JIRA and daily Zoom meetings with the team

**Technologies used:** Golang, Swift, iOS, XCode, Android Studio, MySQL, Ubuntu Linux

More info: [Whitecoat Pro Mobile app](#)

## **Freelance - NDA | Multinational advertising agency** January 2020 - May 2020

### **Backend developer**

#### **Key functions & achievements:**

- Customers who bought the competition product in supermarkets would receive a unique competition code from the products label. Customers then entered their unique competition code into the website to see if their unique code won a prize from 1 of 10 different prizes
- Develop an algorithm to generate 12 million unique competition codes to be printed on the products label
- Develop business logic to determinate if/what prize the code has won
- Develop business logic to open/close different areas of the site based on competition dates
- Develop backend REST API to communicate with the frontend mobile/desktop web site
- Google reCaptcha to protect HTML forms from automated attacks. Eg, an attacker could write a script to randomly guess codes without buying a product and win all the prizes
- Projects code had to past a strict industry security test for things like SQL and XSS injection exploits

**Technologies used:** MySql, PHP7, Apache, AWS

**More info:** The project was done under NDA. Further details disclosed on inquiry

## **TBWA - via Interactive Inc** August 2019 - October 2019

### **Fullstack web / Mobile dev with AWS | 5 week Contract**

#### **Key functions & achievements:**

- National TV campaign for Great Northern Brewing Co.
- Responsive web & mobile app to send email invites for camping events
- Backend on AWS

**Technologies used:** Google maps API, Foundation Framework, AWS (S3, Cloudfront, Lambda, SES, DynamoDB), HTML5, CSS3, Javascript, GIT

**More info:** <https://www.thegreatrecamp.com/>

## **Big Mobile** June 2016 - April 2018

### **Senior Developer**

#### **Key functions & achievements:**

- Administrate ad tech infrastructure on AWS cloud
- Develop & Debug interactive mobile ad creatives in frontend technologies such as HTML5, CSS3 and Javascript. Targeted to run on Android and iOS devices
- Develop backend ad serving platforms using PHP (Laravel MVC framework), MySQL, SQLite and Redis
- "Ad portfolio" project built using ReactJS
- Guide and mentor junior developers
- Manage and administrate company accounts on Google apps. Oversee company IT hardware and operations.

**More info:** <http://bigmobile.com>

## **iOS and Android app dev** Various periods in 2011, 2013 and Sept 2015 - Current

### **Developer and Founder**

#### **Key functions & achievements:**

- 4.5 star app with over 100,000 downloads and over 2.2k 5 star ratings on Android
- Develop both native iOS (Swift) and Android (Java) apps
- Product concept, strategy, user experiance, user interface design, coding and product launch
- 'Serverless' and scalable backend architecture on AWS Lambda in Golang
- Utilise container technology via Docker for segregation of system architectural requirements

**Technologies used:** Golang, MongoDB, Android & Android Studio 2, Postgresql, Docker, Swift, iOS / Xcode / Swift, AWS Lambda, AWS API gateway, AWS SES, AWS Cognito, AWS SNS, Realm.io

**More info:** <https://www.positivethinking.net>

**LS Travel retail** March 2014 - Sept 2015

### Senior I.T Developer

#### Key functions & achievements:

- Technical lead for eCommerce site with 10's of millions of dollars in revenue - [www.aeliadutyfree.co.nz](http://www.aeliadutyfree.co.nz)
- Having a successful online eCommerce business with AKL airport was key to the company winning the tender for physical duty free stores worth 100's of millions per year
- Continually add features and functionality with zero downtime, outages or bugs in production
- Automation of infrastructure deployment and DevOps via Ansible
- Develop internal ASP.net MVC apps with C# and AngularJS
- Write front end code in HTML, Javascript, CSS. Utilising AngularJS for backend API data binding and front end MVC architecture

**Technologies used:** AWS, Ansible, Nginx, MySQL, Apache, PHP, GIT, ASP.NET, C# MVC, Angular JS, Gitflow, CentOS

More info: <http://www.aeliadutyfree.co.nz/>

**Cosmos Media** February 2012 - March 2013 (all staff were made redundant)

### Enterprise systems and Web Developer

#### Key functions & achievements:

- Re-launch the cosmosmagazine.com website (the magazine's website)
- Determine system and functionality requirements from the editorial and business teams; generate appropriate documents from these requirements
- Write, test and debug code in the PHP, Javascript, CSS and HTML languages leveraging Wordpress as the Content Management System
- Architect an infrastructure (hardware) and software solution using Wordpress as a CMS and Amazon Web Services (cloud computing) as the Web host
- Engineer and develop a secure authorisation system for iPad magazine subscriptions
- Research and implement a Multi-currency payment gateway solution with e-commerce software
- Optimise website for ipad, tablet and mobile platforms
- Implement automation of magazine subscriptions tasks through various methods including sending programmatic emails to new subscribers
- Extend base functionality of Wordpress through the development of plugins
- Other various roles and tasks including: Lead project management, test system performance, coordinate project meetings, implement SEO solutions and administrate servers.

**Technologies used:** Wordpress, Drupal, Apache, HTML5, CSS3, SSL/https, Linux, MySQL, Memcached, jQuery, DNS, Apache bench, CDN, Weekly newsletter template, Load balancing and Horizontal scalability, AWS technologies used (Elastic beanstalk, Ec2, RDS, Elasticache, SES, Cloudfront, S3, DynamoDB)

More info: <http://www.cosmosmagazine.com/>

**Hub Systems** 6th May 2008 - August 2010

**Web developer**

**Key functions & achievements:**

- Maintain and develop online freight booking and management applications
- Administrate Linux and Unix servers and systems
- Implement an internal company documentation system using MediaWiki software
- Administrate sendmail and user accounts
- Dynamically generate freight labels in Postscript and Adobe PDF
- Implement code to interface to 3rd party API's and services
- Write and schedule server tasks and daemons
- Write code and systems as required by specifications
- Answer customer support phones and analysis and fix customer problems
- Discuss and analysis requirements/problems with clients

**Technologies used:** Apache, PHP, MySQL, HTML, CSS, Javascript, Subversion, Netbeans, JQuery, Media Wiki, Xdebug, Firebug, Redhat/Centos linux, Bash scripting, C, Postscript, XML, JSON

More info: <http://www.hubsystems.com.au/>

**ACE Insurance** 19/02/07 - May 2008

**Analysis Programmer**

**Key functions & achievements:**

- Maintain and develop Mobile phone insurance, Credit card insurance, and Travel insurance internal processes, code and systems in ASP.net
- Maintain and develop insurance web applications and their online payment systems in ASP.net
- Maintain and develop internal web applications ASP.net
- Develop reports for managers and business using SQL Server
- Administrate system servers
- Analysis and fix production issues promptly
- Analysis business requirements and needs from project stakeholders
- Re-write legacy system code
- Securely interface data with internal and external systems and companies such as banks and payment gateways
- Write and schedule server tasks and daemons
- Test and document written code
- Design database schema's and refer to schema documentation
- Refer to system documentation
- Process batch and online transactions through systems

**Technologies used:** ASP.net, C#, VB.net, VB6, IBM DB2, MS SQL 2005/2000, HTML, JavaScript, SSL, PGP, CSS, DTS, SSIS, Visual studio 2003/2005, Windows server 2000/2003, VB script, C, Rexx, Cobol, Batch script, Expect

More info: [Chubb Limited - ACE Insurance rebranded to Chubb after acquisition](#)

# Technical knowledge and skills

---

## Languages

**Proficient in:** Python, Golang, Swift, PHP, Java, C#, Visual basic.NET, JavaScript & DOM, CSS, HTML5, BASH scripting, XML/Json

**Familiar with:** Batch scripting, Visual basic 6, BASIC, Perl, REXX, COBOL, C, C++

**Databases & Data stores:** Postgresql, Redshift, MongoDB, Redis, MySQL, Microsoft SQL 2000/2005, IBM DB2, Sqlite, Microsoft Access, Realm.io

**Devops / Infrastructure as code (IaC):** Serverless.com, Terraform, Github actions, Jenkins

**Source Code Control:** GIT, CVS, Sub Version, Visual SourceSafe

**Operating Systems:** Linux (Red Hat / CentOS, Debian), UNIX (Advanced - SCO), Docker containers, Windows All versions

**Libraries and Frameworks:** ReactJS, Angular.js, JQuery, .Net versions 3.5, 2 and 1, ADO.NET, Crystal Reports, java.sql, java.net, java.awt/swing, SDL, The STL, Sockets / WinSocks

**Scaling technologies:** Redis, Load balancing, Varnish (reverse proxy), Memcached, 'Serverless' and Micro services architecture', Ansible

**Web MVC frameworks:** ASP.NET MVC, Revel (MVC Golang framework), Laravel (MVC PHP framework), Familiar with Ruby on Rails

**IDE / Debugging experience:** xCode, Eclipse, Android studio 2, Netbeans 5+, Visual studio 2003/2005

**Tools:** Jira, Confluence, Chrome debugger, Strong Adobe Photoshop graphics skills, Expect, Tar/gzip, Cron, GIMP, gcc, ssh, Telnet, VI as well as most UNIX commands/tools, MS Visio, MS project, package managers, Wireshark, MS DTS/SSIS, Sketch - UI designer

**Amazon Web Services Cloud technologies:** Lambda, Redshift, EC2, Elastic Beanstalk, Lambda, S3, RDS, ElastiCache, DynamoDB, VPC, Route 53, CloudWatch, Cognito, Simple Notification Service, API gateway, SES, iOS SDK, Android sdk

**Advanced topics:** Multithreading, Recursion, Polymorphism / Generics, Bitwise operations, Data structures, Custom Events and Exceptions, File IO (Binary & ASCII), A good understanding of Object Oriented Design, Advanced Wordpress, Concurrency and Parallelism

## Professional assets

---

- Practical & pragmatic problem solving skills
- Strong ambition for meeting deadlines
- Proactive thinking
- Leadership skills
- Highly self motivated / Goal Driven / Result Oriented
- Lateral Thinking
- Ability to adapt to changing trends, technology and general working environments - I've been described as an quick learner
- Excellent communication / Interpersonal / Social skills
- Strong judgment
- Strong will to learn and adapt
- Desire for practical perfection
- High level of creativity
- Persistent
- Able to work and make decisions under pressure.

## References

---

Provided on Request