OLIVER GALLOWAY

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Nationalities	British, South African

Profile

Senior software engineer with over 21 years of experience. Specialising in Python programming, quality assurance and release engineering practices, continuous delivery, coaching agile teams and software team management.

Skills & Key Strengths

Technologies

- Programming: Python, Ruby, JavaScript, Java, C#, shell scripting
- Programming styles: Functional and object-oriented
- Cloud computing & containers: Amazon AWS, Google Cloud, Docker, Apache Tomcat
- Continuous delivery: Circle CI, Travis, TeamCity, Drone, CruiseControl.NET
- Non-relational datastores: Redis, CouchDB
- Relational databases: PostgreSQL, MySQL, Sybase, Oracle, Microsoft SQL Server

Agile software practices & team management

- Continuous delivery pipeline design and implementation
- Test-driven design and development, retrofitting test suites for legacy software
- Refactoring to patterns, Clean Code practices, pair programming, retrospectives
- Team management, recruitment, mentoring and coaching

Computing interests

- Machine learning, cognitive computing, data science, functional programming, computing for social benefit

Languages

- English (fluent), Afrikaans (fluent), German (intermediate), French (basic)

Education

Bachelor of Science

University of the Witwatersrand — Johannesburg, South Africa

- Majors: Computer Science & Psychology (1997)

Matriculation Certification

Rand Park High School — Johannesburg, South Africa

- Passed with distinction on higher grade

Experience

B2C2 — London, United Kingdom
A leading cryptocurrency market maker and liquidity provider.

Lead QA Engineer & Python Developer — February 2018 to present

- Maintenance and renovation of trading APIs and order handling codebases (Python).
- Retrofitted unit and BDD functional test scripts and setup continuous integration processes (Python, Drone CI).
- Refactored and converted trading engine services for execution within managed AWS Docker containers.
- Management and recruiting of QA team and mentoring development team members.
- Quality audit of existing software services and projects to identify business risks and establish quality metrics and key performance indicators.

Akvo Foundation — Amsterdam, Netherlands *(via London)*

akvo.org Akvo provides open source software products, data services and mobile applications for the development aid sector.

QA and Release Engineering Team Lead — July 2012 to August 2017

- Management of company-wide QA and release engineering processes for the various product teams.
- Provided team coaching for continuous delivery, test scripting, automation techniques and release engineering practices. Recruited and managed specialist QA and DevOps engineers.
- Performed software quality auditing and reporting for the Akvo management team to analyse and reduce development and infrastructure costs of the Flow and RSR products.
- Maintenance, configuration and scripting of deployments as the Flow product grew from 10 initial App Engine projects to over 140 projects across various testing and live environments (Java, Bash shell scripting, Gradle, Travis CI, Docker, Google App Engine, Amazon S3).
- Created functional tests for headless testing of the Flow product's admin UI (CasperJS, JavaScript, nodeJS, TestRail).
- Maintained and extended the original functional tests, deployment scripts and continuous delivery process for the RSR product (Python, Fabric, Bash shell scripting, Selenium, TestRail).

QA and DevOps Engineer — August 2009 to June 2012

- Implemented deployment scripts and a continuous delivery process for the RSR product across multiple deployment environments (Python, Fabric, Bash shell scripting, TeamCity).
- Created and maintained functional test scripts for the RSR product (Python, Nose, Selenium, TestRail).
- Developed an automated headless execution process for the RSR unit and functional tests as part of the existing continuous delivery process (Python, Selenium RC, Xvfb, TeamCity).
- Migrated the RSR web application and database infrastructure from a single hosted server to a cloud-based VPS cluster to facilitate scaling of the application and more modular deployments (Ubuntu Linux, MySQL, CloudVPS).

Sabbatical & Travel

Own projects and research — February 2009 to July 2009

- Developed iPhone mobile app prototypes and adapted test-driven techniques and continuous integration practices for use in the iOS development ecosystem (Objective-C, OCUnit, OCMock and shell scripting).

BlueCrest Capital Management — London, United Kingdom

BlueCrest was the third largest hedge fund in Europe and at its peak managed over $30 billion in alternative investment assets.

Senior Software Engineer — August 2008 to January 2009

- Established continuous integration infrastructure and developed deployment tools for the various development teams (C#, Sybase, TeamCity, Microsoft TFS).
- Coached developers in release engineering and agile software practices to establish a DevOps culture.

Morgan Stanley — London, United Kingdom

Morgan Stanley is a global financial services company that specialises in investment banking, securities and other wealth management services.

Senior Analyst Developer (Associate) — February 2005 to August 2008

- Renovation and maintenance of an event-based straight-through processing (STP) rules engine for enriching company-wide trade messages in the Trades Completion group. The production system consisted of 15 databases, with 4 multi-threaded SOAP brokers, an in-memory cached rule set and a web application for maintaining the live rules, used by around 500 Operations staff daily. The full system was deployed across New York, London and Tokyo to process over 11 million trade messages daily (Java-based rules engine, C# ASP.NET web UI, Sybase databases).
- Reworked the STP rules engine code to be less procedural and more object-oriented and loosely coupled to allow retrofitting of unit tests and facilitate use of the Spring framework instead of a bespoke SOAP broker.
- Provided agile development workshops and coached developers in software testing practices to lower the cost of development for various software teams in both the Trades Completion and Regulatory Reporting departments.
- Software auditing, risk reporting and application remediation for around 100 reporting applications that spanned various technology stacks (C# WinForms and ASP.NET, Java JSP, Sybase, Tomcat). This allowed the Regulatory Reporting group to meet Sarbanes-Oxley (SOX) and Basel II regulatory compliance for these applications.
- Retrofitted unit tests and created build and deployment scripts for continuous integration of the above systems (Ruby, Perl, Ant, NAnt, JUnit, NUnit, mock objects).

Thomson Reuters — London, United Kingdom

Thomson Reuters in an information services company that offers products in the financial, medical, legal and educational sectors and a major competitor to Bloomberg.

Analyst Developer — May 2001 to February 2005

- Redeveloped the Full Circle financial content distribution product (Java JSP, Oracle PL/SQL) using ASP.NET and moved the application logic from database stored procedures into the application layer to provide a more loosely coupled and testable architecture (C#, ASP.NET, MS SQL Server).
- Development of time-series charting components for the Thomson ONE product (C#, ASP.NET, SQL Server, SVG).
- Implementation of continuous integration and automated testing for the above products (CruiseControl.NET, NAnt, NUnit, JUnit, mock objects).

Early positions — Johannesburg, South Africa

MTN — Software Developer (February 1999 to December 2000)

- GSM messaging applications and performance tuning (Java, Oracle PL/SQL, Apache Bench).

Van Vuuren & Associates — Software Developer (May 1998 to January 1999)

- Financial trading data analysis, transformation (ETL) and optimisation (Oracle PL/SQL, Cognos).

HIX Internet Exchange — Helpdesk Manager (September 1996 to March 1998)

- Helpdesk management, web hosting support, network infrastructure and DNS administration.