

# Peter Daniel van Onselen

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## Professional Summary

**Staff Engineer with deep expertise in distributed systems, cloud infrastructure, and serverless architecture.** Proven track record of leading cross-functional teams, designing high-impact backend systems, and improving performance, reliability, and developer experience at scale. Skilled in TypeScript, Python, and Java, with hands-on experience across AWS (Lambda, CloudFront, ECS), CI/CD, and observability tooling. Adept at mentoring engineers, championing clean code and TDD practices, and fostering alignment through collaborative architecture and discovery work. Brings a pragmatic, people-first approach to technical leadership and system design.

## Experience

### Staff Engineer, The Economist (October 2023 - Current)

- **Performance & Reliability:** Migrated CP2-API from Aurora Serverless to provisioned instances, tuning performance and stabilising Apdex scores across web and mobile.
- **Caching Strategy:** Designed and implemented an end-to-end CloudFront caching architecture for CP2-API and mobile gateway, eliminating Redis dependencies and delivering 200%+ performance gains.
- **Homepage Initiative:** Led backend interface design and API contract definition; coordinated cross-team delivery with Editorial Tools, Engagement, and Mobile teams.
- **Rich Topics & API Handover:** Defined upstream/downstream interfaces for 'Rich Topics'; refactored Search API introducing CI/CD pipelines, test coverage, and smooth handover of ownership.
- **Developer Experience:** Streamlined sandbox feature-branch deployments to improve development velocity.
- **Observability:** Enhanced cross-system logging with CloudFront ID tracing; refactored CP2-Transformer for maintainability.
- **Leadership & Culture:** Championed TDD, pairing, and mobbing; mentored engineers and drove architectural alignment on caching and global APIs.

### Staff Software Engineer, Cazoo (November 2019 - September 2023)

#### *Tech Lead, Car Care Team (June 2021 – October 2022)*

- Led architecture and development of Addons and post-sales products, including Extended Warranties, Service Plans, and Paint Protection—boosting GPU and attachment rates.
- Re-architected Addons platform for easier product onboarding and international scalability (France, Germany, Italy, Spain).
- Introduced automated error handling to reduce support overhead and improve CX.
- Delivered A/B tested UI experiments to optimise conversion.
- Mentored engineers to senior levels and fostered a quality-first engineering culture.

#### *Staff Engineer, Consumer Finance Team (November 2022 – September 2023)*

- Co-led re-architecture of checkout-to-order systems, enabling three stream-aligned teams and improving delivery velocity.

- Stabilised platform reliability and reduced support load through improved alerting and systems design.
- Partnered with Quality Engineers to drive shift-left testing and continuous quality.
- Actively mentored colleagues and supported career progression.

## Principal Member of Technical Staff (Software Engineer IC4), Oracle (2014 - 2019)

- Key member of the Infrastructure team as part of the Compute division of Oracle Public Cloud Infrastructure Classic (OCIC), developing new features, providing production support, and fixing bugs
- Primary contributor on various projects including adding authentication and versioned updates and deletes to a NoSQL Shim, designing and implementing a Database Limit Service, and developing a Kubernetes layer in the Dom0 of the admin clusters
- Utilised Python, Java, Docker, Kubernetes, Oracle Linux, Make, Bind9 DNS, Oracle NoSQL, Twisted, Elasticsearch, Logstash, and Kibana

## Volunteer Conference Organizer at Python Software Society for South Africa (2016 - 2017)

- Volunteer organiser for the PyConZa Conference. Responsible for the Venue portfolio, and was also a member of the Executive Team of the committee.

## Senior Software Engineer, Entelect Software (2010 - 2014)

- Contracted to Standard Bank, a top three South African bank, in their Online Share Trading division on a number projects, including rewriting the trading system, a new onboarding system and adding a new trading product to the platform.
- Utilised ASP Classic, ASP.Net, ASP MVC 2-4, Javascript, jQuery, AngularJS, C#, Microsoft SQL Server 2008, nHibernate, Ninject, MS Test, StoryQ, Moq, IIS 7, IBM Websphere.

## Skills:

- Leadership and Collaboration: Guiding team technical approach and execution, collaborating extensively with other teams, driving alignment on technical approaches
- Programming Languages: Python, Java, TypeScript, JavaScript
- Cloud Technologies: Docker, Kubernetes, Serverless Framework, AWS (Lambda, CloudWatch, SQS, ECS), Terraform
- Operating Systems: Oracle Enterprise Linux

## Education

### BSc Honours in Information Technology, Cum Laude, University of Johannesburg, South Africa, 2008

Subjects: Compiler Construction, Graphics, Artificial Intelligence, Advanced Artificial Intelligence, Introduction to Project Management, Information Security, Ethics  
 Project: Distributed Rendering with Geometry Division

BSc Information Technology degree from University of Johannesburg,  
South Africa, 2007

Majoring in Computer Science and Informatics