PERSONAL INFORMATION   # Lukas Erlacher

📍 Melbourne, Victoria

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Nationality German (Australian Permanent Resident)

PROFILE

I am a skilled Cloud DevOps consultant with a wealth of experience architecting, implementing, and supporting modern cloud architectures for websites, e-commerce, marketing platforms among others.

In my roles as Principal Engineer, Senior DevOps Engineer, and before that I have architected and implemented solutions that put business requirements, performance and observability first, while ensuring maintainability and security through the application of strong best-practice first principles.

In practical application of the principles of DevOps philosophy to cloud infrastructure, I use Infrastructure-As-Code (IaC), best-practices code collaboration, peer review, and deployment through CI/CD, and modern tooling and platforms including Terraform and Kubernetes to create best-of-breed platforms.

WORK EXPERIENCE

2022 – Principal Engineer

Haylix, Melbourne

Managed Cloud Solutions and Platform Engineering

- Azure and AWS solution architecting
- Architectural ownership of Haylix' cloud solution and process landscape
- Technical leadership on compliance and security
- Architecture, planning, and driving implementation of cloud infrastructure automation

2020 – Senior DevOps Engineer

Haylix, Melbourne

Azure solutions and platform engineering

- Design and manage Azure PaaS solutions across multiple clients
- Architect, implement and support in-house monitoring and support automation platform
- Technical support escalation and incident response
- Internal process development and training

2019 – 2020 DevOps Engineer

CityFM, Mulgrave

Azure architecture and AKS Kubernetes platform for modernising a legacy Azure environment

- Established IaC and DevOps practices for Azure infrastructure with Terraform Cloud
- Designed Enterprise Kubernetes Platform to support rewrite of legacy services in microservices architecture on AKS
- Analyzed Azure performance and billing issues and provided solutions by migrating resources and optimizing resource scaling

2018 – 2019   Systems Automation Engineer

Liberty Financial, Melbourne

Automation and DevOps transformation of a mid-size Windows-based technology business

- Automated VMWare VM provisioning and configuration with Vagrant, Packer and Ansible to improve manageability for on-prem infrastructure
- Automated Azure cloud services provisioning, configuration and full workload lifecycle in Azure DevOps with Terraform to develop powerful agile cloud capabilities
- Provided DevOps solution and processes coaching to infrastructure engineers and software developer teams to maximise velocity and achieve best engineering results

2017 – 2018   Systems Engineering Consulting

Sole Trader

Systems and Infrastructure development and maintenance

- Developed backend architecture for IoT nodes using Docker and Python to provide flexible control and data gathering
- Developed bootstrapping scripts for IoT nodes using Python to enable quick configuration with minimal manual work

2015 – 2018   Systems and Operations Engineer

Department of Computer Science, Technical University of Munich, computing services division

Infrastructure automation and internal software development

- Automated configuration of Bind9 DNS servers using Saltstack to improve manageability and reliability of DNS for a complex hidden master split DNS architecture in a public /16 network with several public TLDs
- Uplifted infrastructure monitoring system from hand-crafted Nagios to scripted Icinga2 to improve flexibility and agility of monitoring
- Automated bare metal server and client provisioning using PXE (Syslinux) and Saltstack to accelerate deployment and improve manageability

2011 – 2012   Computer Programmer

Klinikum rechts der Isar, Munich, Orthopedics division

Development of Software to model, visualize, and control medical systems

- Develop proof-of-concept C# implementations of new optimisation algorithms from scientific papers to investigate viability and performance
- Develop automatic and semi-automatic feature recognition algorithms to enable new features and workflows for customers
- Develop tooling to support software workflows

2009 – 2016   Computer Science Teaching Assistant

Technical University of Munich

TA for the following courses:
- Introduction to Computer Networking and Distributed Systems (lecture and project course)
- Introduction to Computer Architecture (lecture and project course)
- Aspects of Low-Level Programming for Games Development (project course)

All of these courses involved 50% instruction and 50% designing, programming and maintaining support systems for the project labs, e.g. allocating computing resources to students and automated version control, testing, and grading systems.

| 2004 – 2012 | Freelance Web Consulting |

- Acquisition, setup, administration, and maintenance of PC workstations and small LANs
- Setup, administration, and maintenance of web servers, databases, webhostings
- Web development (PHP, HTML, MySQL) for websites and web applications
- Design, development, and maintenance of desktop database applications (MS Access, OO.o Base)
- Setup, customization, maintenance, and content formatting for websites, CMS and boards (Mambo, Joomla!, phpBB)
- Design, content, layout, copy-editing, and prepress for handouts, flyers, posters

EDUCATION AND TRAINING

01 October 2012 – 31 April 2015

Informatik (Computer Science) Master of Science

Technical University of Munich

- Applied subject Electrical Engineering, Interdisciplinary Project "Development of the Moep80211 Wireless Mesh Network"
- Master Thesis "Latency Optimisations in Linux Networking"

01 October 2008 – 31 September 2012

Informatik (Computer Science) Bachelor of Science

Technical University of Munich

- Applied subject Medicine, interdisciplinary project "Human Bone Segmentation"
- Bachelor Thesis "Link-Layer Forward Error Correction for Wireless Mesh Networks"

20 September 1999 – 31 July 2008

Abitur / Allgemeine Hochschulreife (High school diploma)

Gabriel-von-Seidl-Gymnasium Bad Tölz

- AP Physics, English
- Extracurriculars Delphi Programming, Java Programming, Web Programming (HTML, PHP, MySQL)

12 September 1995 – 31 July 1999

Primary education

Volksschule Reichersbeuern

PROFESSIONAL SKILLS

Certification

Azure:

- Azure Administrator Associate (AZ-104)
- Azure Solutions Architect Expert (AZ-305)

AWS:

- AWS Cloud Practitioner

Datadog:

- Datadog Support Specialist
- Datadog Technical Specialist

Programming Languages

Proficient:
- Python (2.7 / 3.5+)
- C#
- C
- Lua

Intermediate:
- OCaml / Standard ML
- Ruby
- JavaScript / TypeScript
- VHDL
- Java

Beginner:
- C++
- Haskell

Frameworks / Stacks / Environments

Proficient:
- Docker
- Kubernetes
- Azure Cloud
- AWS Cloud
- C# .Net / WPF desktop applications
- Postfix / Dovecot / Roundcube / SpamAssassin E-Mail Infrastructure
- ARM-based Microcontrollers (NXP LPC, Infineon XMC, STM32)
- Linux administration and infrastructure: Bind9 DNS, Openldap, Icinga2 (Nagios), Grafana
- MySQL, Postgres, SQLite Database administration
- LXC (Linux Containers)
- Linux-based engineering of scalable and redundant computing services
- Datadog

Intermediate:
- Rails
- Django, Flask (Python web frameworks)
- OpenGL, DirectX

Dabbling:
- Node.js
- Bootstrap

Tooling

Proficient:
- Git VCS
- Saltstack, Ansible Configuration Management
- Puppet Configuration Management
- Vagrant
- Terraform
- Packer
- Gitlab Collaboration Platform
- Azure DevOps Platform
- VMware ESXi 6.5
- GNU Make

Intermediate:
- Subversion VCS
- Cmake
- Appveyor & Travis Continuous Integration and Delivery

EXTRACURRICULAR AND PERSONAL PROJECTS

September 2013 – 2016

Electronics and Software Development
TUfast e.V. ECO Team

- Design and construction of a high-efficiency battery electric prototype vehicle
- Low level embedded peripheral programming, drive control system design and programming, communication bus design and programming, system integration
- Interim propulsion group leader (2014)
- Developed the software for all control systems for Eli15 vehicle, 2015 winner of Shell Eco Marathon and EducEco Toulouse competitions
- Refit of ELi14 vehicle and development of power measuring sensors for 2016 Guinness World Record "Most Efficient Electric Vehicle"

April 2014 – Present

Software Library Development
OnionOO (Tor Project)

- Design and development of an API wrapper library for the OnionOO REST service
- Python 2/3 software distribution
- Transparent data caching

PERSONAL SKILLS

Mother tongue(s) German

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C1	C2	C2
30 (HIGH)	29 (HIGH)	28 (HIGH)		29 (HIGH)

English – CEFR
English – TOEFL

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages