CURRICULUM VITAE: ZANE VAN IPEREN

PERSONAL DETAILS

Name:	Zane van Iperen	E-Mail:	zane@zanevaniperen.com
Address:	QLD, Australia	Website:	https://zanevaniperen.com
Phone:	+61 432 868 227	GitHub:	https://github.com/vs49688/
PGP:	61AE D40F 368B 6F26 9DAE 3892 6861 6B2D 8AC4 DCC5		

EDUCATION

Bachelor of Information Technology (Hons), 2017
THE UNIVERSITY OF QUEENSLAND, St Lucia, QLD, Australia

Certificate II in Information Technology, 2008
METROPOLITAN SOUTH INSTITUTE OF TAFE, South Brisbane, QLD, Australia

PROFESSIONAL EXPERIENCE

MARCH 2024 – PRESENT

Senior Engineer, *ZeroFlucs Pty Ltd*, Australia.

MAY 2023 – MARCH 2024

Software Engineer, *Titanium Studios Pty Ltd*, Australia.

- Specific details under NDA.
- Developed software to run on Xbox One, Xbox Series, PS4, PS5, and Switch.

OCTOBER 2021 – MAY 2023

Developer, *Entain Group Pty Ltd*, Australia.

- Actively contributed to the development and maintenance of PriceKinetics, a core component of Entain Australia's extensive bookmaking platform composed of numerous microservices, significantly bolstering the achievement of business objectives.
- Integrated data feeds from a diverse range of providers, encompassing both local and international sources, to enhance overall system functionality.
- Designed and implemented highly-available microservices, ensuring minimal downtime and consistent, reliable performance.

MARCH 2017 – OCTOBER 2021

Software Developer, *The University of Queensland*, Australia.

Worked at the Research Computing Centre (RCC) at the University of Queensland.

- Redesign the Nimrod distributed computation toolkit,
- Provide a user-friendly web portal to interface with Nimrod and the HPC.
- Write software and utilities to support various research across multiple faculties at UQ.
- Install and manage UQ's Globus Connect platform.
- Spearheaded the migration of organisational infrastructure to resiliant infrastructure using a combination of Kubernetes and IaaC techniques (Terraform), based on the ARDC Nectar Research Cloud.

JANUARY 2017 – MARCH 2017

Intern, *University of Cambridge*, United Kingdom.

Interned at the Facilty of Engineering as a companion program to my honours degree.

- Implement and optimise the *Multi-objective Tabu Search II* (MOTS2) algorithm in Nimrod/OK.
- Use MOTS2 to determine the optimal shape of an aerofoil subject to various constraints.

EXTRA-PROFESSIONAL EXPERIENCE

APRIL 2021 – PRESENT

Package Maintainer, NixOS.

Open-source Linux distribution.

JANUARY 2020 – PRESENT

Maintainer, FFmpeg.

Popular open-source multimedia processing utility.

- Reverse-engineered and added support for various multimedia codecs and formats.
- Code review and ongoing maintenance.

FEBRUARY 2016 – NOVEMBER 2017

Honours Student, *The University of Queensland*, Australia.

- Implement and optimise the *Multi-objective Tabu Search II* (MOTS2) algorithm in Nimrod/OK.

JULY 2015 – NOVEMBER 2015

Development Lead – Undergraduate Project, *The University of Queensland*, Australia.

- Created *Pieces of Eight*, a cross-platform, multiplayer, Mario Party-inspired game using the Unity3d engine.

This project was nominated for *Best Non-Thesis Project* and for *Best Software Project* in the UQ Innovation Showcase for 2015.

COMPUTER SKILLS

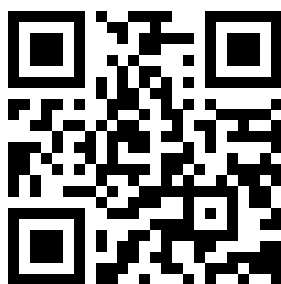|			
Programming	C, C++, C#, Java, Go, SQL	Web	HTML, CSS
Scripting	Python, Shell, Nix	Misc	LaTeX, Git, OpenGL
Systems	Linux, Windows	DevOps	Ansible, Terraform, OpenStack, AWS, Docker, Kubernetes

LANGUAGES

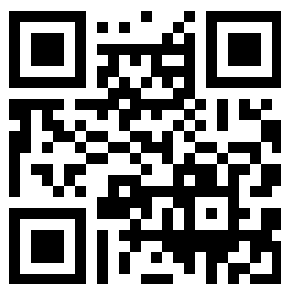|			
English	Native	Russian	Basic (A1)

LEISURE AND HOBBIES

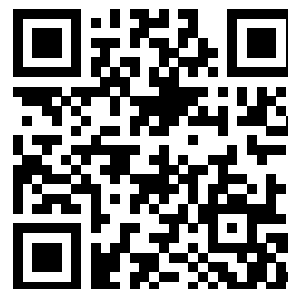|	
Computing	Reverse Engineering, Programming
Sports	Weight Lifting, Calisthenics

PUBLICATIONS

[1] H. A. Nguyen, Z. van Iperen, S. Raghunath, D. Abramson, T. Kipouros, and S. Somasekharan, "Multi-objective optimisation in scientific workflows," *Procedia Computer Science*, vol. 108, pp. 1443–1452, 2017, International Conference on Computational Science, ICCS 2017, 12-14 June 2017, Zurich, Switzerland, ISSN: 1877–0509. DOI: 10.1016/j.procs.2017.05.213. [Online]. Available: http://www.sciencedirect.com/science/article/pii/S1877050917308062.

[2] D. Abramson, J. Carroll, C. Jin, *et al.*, "A Cache-Based Data Movement Infrastructure for On-demand Scientific Cloud Computing," in *Supercomputing Frontiers*, D. Abramson and B. R. de Supinski, Eds., Cham: Springer International Publishing, 2019, pp. 38–56, ISBN: 978-3-030-18645-6. DOI: 10.1007/978-3-030-18645-6_3. [Online]. Available: https://link.springer.com/chapter/10.1007%2F978-3-030-18645-6_3.

[3] Z. van Iperen, D. Green, H. Nguyen, and D. Abramson, "Embedded Nimrod, Enabling easy HTC in HPC environments," presented at the eResearch Australasia 2019 (Brisbane Convention & Exhibition Centre, Oct. 21–25, 2019), Brisbane, Australia, Oct. 22, 2019. [Online]. Available: https://conference.eresearch.edu.au/wp-content/uploads/2019/08/2019_eResearch_89_Embedded-Nimrod.pdf.

[4] D. Abramson, J. Carroll, M. Mallon, A. Narayanan, E. Scriven, and Z. van Iperen, "CAMERA, Focussing on instrument based research," presented at the eResearch Australasia 2019 (Brisbane Convention & Exhibition Centre, Oct. 21–25, 2019), Brisbane, Australia, Oct. 22, 2019. [Online]. Available: https://conference.eresearch.edu.au/wp-content/uploads/2019/08/2019_eResearch_84_CAMERA-Focussing-on-instrument-based-research.pdf.

[5] H. A. Nguyen, Z. van Iperen, J. Carroll, N. D. Condon, D. Abramson, and J. Springfield, "A Web-based graphical interface for microscopy image analysis on a GPU cluster," presented at the Light Microscopy Australia 2019 (Translational Research Institute Australia, Mar. 6–8, 2019), Brisbane, Australia, Mar. 6, 2019. [Online]. Available: https://github.com/UQ-RCC/LMA2019-poster/blob/master/main.pdf.

[6] H. A. Nguyen, Z. van Iperen, J. Carroll, *et al.*, "GRAPHICAL USER WEB BASED INTERFACE FOR BATCH PROCESSING OF IMAGES ON A LINUX BASED GPU HIGH PERFORMANCE CLUSTER," presented at the Focus On Microscopy 2019 (Queen Elizabeth II Centre, Apr. 14–17, 2019), London, United Kingdom, 2019. [Online]. Available: http://www.focusonmicroscopy.org/2019/PDF/1131_Springfield.pdf.

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