

# CURRICULUM VITAE: ZANE VAN IPEREN

## PERSONAL DETAILS

Name: Zane van Iperen  
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GitHub: <https://github.com/vs49688/>

## EDUCATION

### **Bachelor of Information Technology (Hons), 2017**

THE UNIVERSITY OF QUEENSLAND, St Lucia, QLD, Australia

### **Queensland Certificate of Education, 2011**

THE SPRINGFIELD COLLEGE, Springfield, QLD, Australia

### **Certificate II in Information Technology, 2008**

METROPOLITAN SOUTH INSTITUTE OF TAFE, South Brisbane, QLD, Australia

## AWARDS & ACHIEVEMENTS

### **UQ Innovation Showcase 2015 – Best Non-Thesis Project – Nominee**

THE UNIVERSITY OF QUEENSLAND, St Lucia, QLD, Australia

### **UQ Innovation Showcase 2015 – Best Software Project – Nominee**

THE UNIVERSITY OF QUEENSLAND, St Lucia, QLD, Australia

## PROFESSIONAL EXPERIENCE

### **JULY 2024 – PRESENT**

**Senior Software Engineer**, *Caesars Entertainment, Inc.*, Australia.

### **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 resilient infrastructure using a combination of Kubernetes and IaaS techniques (Terraform), based on the ARDC Nectar Research Cloud.

## **JANUARY 2017 – MARCH 2017**

**Intern**, *University of Cambridge*, United Kingdom.

Interned at the Faculty 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.

## **FEBRUARY 2014 – NOVEMBER 2014**

**Teaching Assistant**, *The University of Queensland*, Australia.

- Assist with teaching and administration activities for the *Algorithms and Data Structures* and *Programming in the Large* student courses.

## **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  
Scripting Python, Shell, Nix  
Systems Linux, Windows

Web HTML, CSS  
Misc  $\LaTeX$ , Git, OpenGL  
DevOps Ansible, Terraform, OpenStack,  
AWS, Docker, Kubernetes

## LANGUAGES

English Native

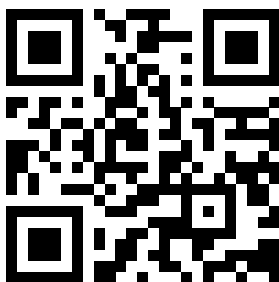
Russian Basic (A1)

## LEISURE AND HOBBIES

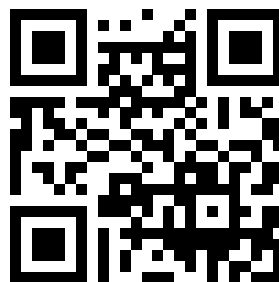
Computing Reverse Engineering, Programming  
Sports Weight Lifting, Calisthenics

## PUBLICATIONS

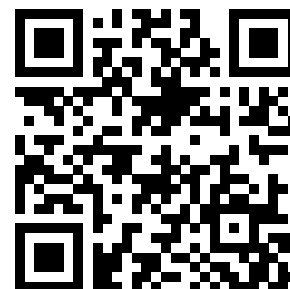
- [1] H. A. Nguyen, Z. van Iperen, S. Raghunath, D. Abramson, T. Kipouros, and S. Somasekharan, “Multi-objective optimisation in scientific workflows,” *Procedia Computer Science*, vol. 108, pp. 1443–1452, 2017, International Conference on Computational Science, ICCS 2017, 12–14 June 2017, Zurich, Switzerland, 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](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](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](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](http://www.focusonmicroscopy.org/2019/PDF/1131_Springfield.pdf).



Website



Email



PGP Fingerprint