

Location

Tauranga, New Zealand
(Feb 2021: Now Lisbon, Portugal)

Date of Birth

16 August, 1985 – Auckland, New Zealand

Education

University of Waikato, New Zealand
MPhil, Computer Science, 2017
BCMS, first class hon., 2008

Selected Honors

UoW CS Scholarship, 2012
UoW Doctoral Scholarship, 2008–2011
'Best BCMS Honours Project' award, 2007
CompSci Undergrad Scholarship, 2004
UoW 40th Anniversary Scholarship, 2004

Selected Skills

Programming languages

C, C++
Python, Java
Javascript, HTML, PHP
L^AT_EX

Technologies

AWS
GCP
Azure
Drones
Linux
Networking / devops
Network software
3D Rendering
Distributed systems
Web applications
API development
Android (Java, NDK)
Revision control (git, hg, svn)
Android
iOS
Ionic Framework
Cordova/Phonegap

References

Available upon request

EXPERIENCE

2008 – PRESENT: Independent consultant

- Full-stack development, mainly using Python, C/C++ and Javascript stacks.
- Helped define and implement both business and development objectives.

2014 – 2020: CTO, Apellix

- Technical lead building the Apellix automated drone AI platform on embedded Linux+DJI stack, and associated web/API services on AWS.

2015 – 2018: CTO, ButlerTech Group

- Technical lead building the ButlerTech hotel and condo management products.
- Funded by US\$1.2m of private investment, I ran the remote development team for worldwide product development.

2012 – 2015: Cofounder, SafariDesk Inc.

- Technical lead building SafariDesk Enterprise, a product to help hoteliers in the emerging East Africa region manage their operations efficiently
- Funded by the Savannah.vc seed capital fund/startup accelerator.

2011 – 2012: NASA / Endpoint Corporation / Google Liquid Galaxy

- Adapted my open-source ClusterGL distributed rendering system to run on Googles Liquid Galaxy hardware.
- ClusterGL has since been deployed around the world, including the NASA Johnson Space Center and the Commercial Airplane Corporation of China (COMAC)
- NASA press described ClusterGL as '*an innovative solution*'. It will be used as the future distributed rendering backend for astronaut training software and on-board system software aiding in the design of next-gen space hardware.
- Funded by Google Summer of Code 2011 and 2012, mentored by Endpoint and NASA Space Life Sciences Directorate.

2010: Android / Google

- Developed initial official port of the widely used Simple DirectMedia Layer library to the Android OS using the newly-released C++ Native Development Kit.
- This work has been subsequently deployed worldwide in a large number of commercial and non-commercial libSDL-powered Android applications.
- Funded by Google Summer of Code 2010.

2008 – 2012: Researcher, University of Waikato

- Designed and implemented a distributed operating system for embedded wireless sensor networks. Includes a distributed JVM to transparently partition applications on the bytecode level, and an embedded C kernel/userspace.
- This later became my MPhil thesis topic: "*Distributed Operating Systems on Wireless Sensor Networks*"

SELECTED PUBLICATIONS

'*Distributed OpenGL Rendering in Network Bandwidth Constrained Environments*'.
Braden, N and Hunkin, P.W and McGregor, T – *EUROGRAPHICS 2011, PGVIZ*
'*Automatic application object migration in sensor networks*'.
Hunkin, P.W and McGregor, T. – *SENSORCOMM2010*

INDEPENDENT PROJECTS

BidBot – An implementation of XKCD-576, this system used a variety of heuristics to identify and automatically win internet auctions. The story went viral in 2010, with worldwide tv/radio/internet coverage.