



## EDUCATION

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DEGREE: Bachelor of Engineering (*Mechanical, Advanced*), University of Sydney.

RESULTS: First Class Honours and the University Medal.

AWARDS:

- Dean's List of Excellence in Academic Performance 2014, 2015, 2016.
- University of Sydney Academic Merit Prize 2014, 2015, 2016.
- Grahame Mechanical Engineering Senior Scholarship 2015.
- Grahame Prize 2016.
- First in Advanced Engineering Extension subject 2013, 2014, 2015, 2016.

PROJECTS I INITIATED AND LED:

- Designed system to recycle plastic bottles into corrugated roofing in developing countries.
- Pitched plan for business to inform consumers of the carbon footprint of their weekly shop, and programmed and demonstrated a proof-of-concept Android app & web ecosystem to do so.
- Designed, programmed and deployed suite of web-based games aimed at introducing high-school students to concept of Emergent Systems — adopted by USYD School Outreach Program.
- Coordinated a student consultancy project resulting in an initial \$1.5 million windfall for client, with ongoing revenue of \$120,000 per annum.

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DEGREE: Bachelor of Media (*Audio-Visual Production*), Macquarie University.

RESULTS: 3.551 GPA.

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AWARD: Higher School Certificate.

RESULTS: Tertiary Entrance Ranking of 98.40.

## EMPLOYMENT

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M A Y

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COMPANY: Tzukuri Pty Ltd.

POSITION: Process Engineer.

Designed and implemented processes to bring to market the world's first unlosable sunglasses and optical eyewear.

ACHIEVEMENTS:

- Key member of small team that completely redesigned the luxury eyewear manufacturing process, to incorporate electronics into a seamless package within precision-milled frames.
- Led and participated in machine, adhesives, and mass-finishing design, testing and validation.
- Coordinated design and adoption of company-wide Lean management and communications.
- Developed, programmed and deployed urgently-required Android-based QR-code stock-tracking system over very tight 24-hour timeframe.

M A R



O C T

2 0 1 6

COMPANY: Tzukuri Pty Ltd.

POSITION: Consultant, Production and Process Engineering.

COMPANY: Faculty of Engineering and IT, University of Sydney.

POSITION: Faculty Communicator, High School Outreach Program.



N O V  
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M A R  
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COMPANY: Tzukuri Pty Ltd.

POSITION: Intern, Production and Process Engineering.

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FREELANCE: Film and TV cinematographer and camera operator.

Worked on many television shows, independent features, music videos, and short films and documentaries in Australia and internationally.

#### ACHIEVEMENTS:

- Shot and co-produced the internationally award-winning short film Finding Manjushri in the foothills of the Indian Himalayas. The film was included in the Official Selection at Cannes 2013.
- Concurrently filmed and co-produced a documentary commissioned by award-winning director Khyentse Norbu. This project has since won further funding and I filmed recently for it in Europe.
- Designed and built many camera rigs, jibs, stabiliser and trick optical devices.

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FREELANCE: Film and TV camera and jib assistant, focus-puller and camera operator.

Worked on many television shows, music videos, corporate promotions and short films and advertisements in Australia and overseas.

## TECHNOLOGY

C O D E

LANGUAGES: Extensive experience with Python, PHP, HTML, MySQL, CSS, Javascript, Objective-C, Java and MATLAB.

#### PROJECTS INITIATED AND LED:

- Designed, programmed and released on the App Store and Obj-C iOS app, and complementary Android app and web backend, allowing users to match apps when migrating cross-platform.
- Honours thesis Android app to aid teaching of Numerical Methods, available on Play Store. (<https://play.google.com/store/apps/details?id=com.simly.numericalMethods>)
- Suite of educational web games to teach Emergent Systems. (<https://simly.com.au>)
- Solid and fluid dynamics simulations in ANSYS simulation package and in Solidworks.
- Custom Navier-Stokes and 3D unstructured mesh heat distribution solvers in MATLAB.

S O F T  
W A R E

PACKAGES: Extensive experience with Adobe Creative Suite, Blender 3D modeling, video editing packages, and Office suite. Written custom Javascript/AppScript extension modules for Google Docs applications.

C A D /  
C A M

SKILLS: Solidworks Certified Associate (*Certificate # C-BJ9MDG98RS*). Familiar with RhinoCAM and CNC milling/lathe processes. Own and use FDM printer. Conversant with Arduino microcontroller platform & labVIEW package.

## COMMUNITY

I currently act as the Technical Officer for Lotus Outreach Australia, a charity that aims to prevent slavery and human trafficking in South-East Asia. For many years I volunteered as a judge for Tournament of Minds Australia, having participated previously, and I am a member of Engineers Without Borders.

## REFEREES

By request

