KELTON BOYTER-GRANT

Digital XR-Designer og Udvikler | Master of Architecture | Relocating to Copenhagen | Seeking sponsorship | English + Australian Citizen
https://keltonbg.com/ | LinkedIn | Instagram | keltonboytergrant@gmail.com

Architectural Designer and XR developer with **5+ years of experience in industry and academia** integrating design principles, computational design, BIM and immersive technologies into architectural and pathology projects and workflows. I hold a Master of Architecture from The University of Queensland where I contributed and conducted research at a Master's level, delivering a thesis, conference paper and 1:1 fabricated prototypes. I specialise in **design, workflows, technology, and innovation** to improve design outcomes and communication. Currently based in Brisbane and relocating to Copenhagen in April, I am seeking an innovative role where I can collaborate and contribute my minimalist design approach and technical skills.

Jeg taler flydende Engelsk, og jeg er en nygegvnder i Dansk. Jeg tager lektioner for at forbedre mig.

Skills

Rhino	Photoshop	Unreal Engine 5
Grasshopper	Illustrator	C++
Revit	Indesign	Python
Blender	Lightroom	Git Version Control

Education

2020 - 2023 Master of Architecture from The University of Queensland
2017 - 2019 Bachelor of Architectural Design from The University of Queensland

Publications + Presentations + Certificates

2024
- Primary author and conference presenter: Boyter-Grant, K. et al (2024). Weaving Tectonics: Algorithmically Optimised Robotic FRP Weaving of Large Scale Planar Forms. In: Yan, C., Chai, H., Sun, T., Yuan, P.F. (eds) Phygital Intelligence. CDRF 2023. Computational Design and Robotic Fabrication. Springer, Singapore. https://doi.org/10.1007/978-981-99-8405-3_39

2022 - Present
- Co-Organiser and host of the Brisbane Computational Design Group

2020 - 2025
- Guest Lecturer on Architectural Workflows and Computational Tools | The University of Queensland

2023 + 2025
- Speaker at Portfolio Review Event | SONA

2023
- Speaker at Value Talk "Entering The Profession" | EmAGN

2023
- Guest Speaker | Dear Designer Podcast | 2023

2025
- CS50x Introduction to Computer Science Certificate

Experience

Oct 2023 - Present | XR Digital Designer + Developer | Sullivan Nicolaides Pathology

Virtual Training Application

- Led the design and development for a world-first mixed realities (XR) training application for pathology laboratory staff using Meta Quest 3 VR headsets, Unreal Engine, Blender, Adobe Suite, C++, Git version control and Python. Delivered engaging, accurate, and waste-free training that improves muscle memory, reduces costs, and improves staff engagement.
- Led the overall design direction and user experience strategy through 2D mock ups, 3D asset creation, environment design, spatial thinking and a human-first approach.
- Assisted programming in Unreal Engine's Blueprints and C++, contributing new feature development, backend logic, user interface (UI) interactions, object, environment, and user interactions.
- Facilitated team meetings focused on collaboration, goal setting and project management to ensure deadlines and project outcomes were achieved successfully.
- Developed several lightweight Python tools to support the team by streamlining aspects of development and documentation.
- Led the development, documentation and management of project processes, design language, and administrative systems; strengthening communication and project execution amongst the team.

Introduction of Revit (BIM)

- Led the company-wide adoption from AutoCAD to Revit (BIM) by working with BIM consultants to build a coordinated model of the laboratory, custom families, templates and documentation. Designed and delivered staff training to ensure a successful transition. The implementation of Revit resulted in faster project delivery times, reduced costs, and improved contractor coordination and communication.

Jan 2023 - Oct 2023 | Architectural Graduate | BVN Architecture

DOMA ATO Offices - 8 Story Commercial Tower

- Worked collaboratively within a small project team to document and design with Rhino, Revit, Adobe Suite, and physical models to meet tight submissions for 50-100% Design Development, 100% Construction Documentation, and 0-5% Construction Administration.
- Coordinated key drawing sets from the structural, mechanical, and hydraulic engineerings, landscape architect, the accessibility consultant, and building certifier.
- Assisted documentation of the stair, wall partition, concrete profile, and interior drawing sets.
- Led one consultant meeting with the landscape architect during construction documentation.
- Improved the consultant coordination workflow in Revit by creating a linked model with all consultant drawings which were able to be continually updated and referenced in the project file.
- Produced a 1:200 presentation model of the entire project with 3D printing, laser cutting, foam wire cutting and physical modeling techniques; presented to the developer and client in late design development to explore design options.
- Applied Australian building regulations, NCC and Australian Standards, to ensure compliance before construction.

Ross St Sydney University Competition - 6 Story Higher Education Teaching Building

- Collaborated across the Brisbane and Sydney offices on a 4 week competition using Rhino, Rhino-Inside, Revit and the Adobe Suite to design, document, and contribute to the winning competition submission.
- Led the Revit component of the competition team with the use of design options, custom family creation, modeling, view templates, and coordination of the Rhino massing and facade models with Rhino-Inside.

Defence Project

- Collaborated with a small confidential project team with Revit, Enscape, Rhino, Grasshopper, and physical modeling to develop the project's concept from 0-5% design development; consistently hitting short weekly deadlines.
- Explored facade design options with computational modeling in Rhino, Grasshopper and Rhino-Inside for rapid prototyping to assist principals and the client in the design decision process.
- Produced 2 physical models (1:2000 and 1:1000) to communicate design intent to the client, directly influencing core design decisions for the project moving forward.

Nov 2020 - Jun 2023 | Research Assistant | The University of Queensland

University of Queensland's Digital Twin

- Expanded upon the Digital Twin research led by Dr Fred Fialho Leandro Alves Teixeira using Unreal Engine, Rhino, Grasshopper, Revit, Lidar Scanners, Adobe Suite, Meta Quest 2 devices, and Cloud Compare, to develop a small scale prototype that formed the basis of my Master's thesis "Digital Twin workflow in Architectural Design: Can data and experiential simulations improve design outcomes".
- The research was publicaly exhibited at the State Library Queensland's exhibition "Purpose Built".

Digital Heritage Significance of the Zelman Cowen Building

- Contributed to research led by Associate Professor Kelly Greenop, Dr Susan Holden, Dr Ashley Paine and Dr Steve Chaddock to create a digital Revit model of The University of Queenland's Zelman Cowen Building with its 50 years of adaptations and intangible heritage.
- Led the Revit modeling of architectural drawings, creating custom families, producing point cloud scans, and taking high quality images to try and capture the tangible and intangible heritage qualities of the building.

Robotic FRP Woven Tabletop Fabrication

- Led the design, programming and fabrication of a robotic woven tabletop prototype to assist with PhD research supervised by Dr Dan Luo. Researched and fabricated a 1.8m diameter tabletop with a thickness of 20mm; demonstrating a novel fabrication method for large-scale planar structures using MW-BESO optimisation, and robotic woven carbon fiber.
- Primary author and presenter of the conference paper "Weaving Tectonics: Algorithmically Optimised Robotic FRP Weaving of Large Scale Planar Forms", with the prototype exhibited at the 2023 Melbourne Design Week.

References

Name	Dr Danielle Thygesen
Position	Workforce Capability Department Head
Company	Sullivan Nicolaides Pathology
Email	danielle_thygesen@snp.com.au
Relationship	Current Manager

Name	Dr Fred Fialho Leandro Alves Teixeira
Position	Associate Professor in Design
Company	The University of Queensland
Email	f.frederico@uq.edu.au
Relationship	Previous Academic Supervisor

PORTFOLIO

KBG

KELTON BOYTER-GRANT

I create and develop innovative design solutions through technology, research, and minimalism to improve human experiences.

Architectural Designer and XR Developer
5+ years of experience
Master of Architecture

I design to create simplicity. I

https://keltonbg.com/

BVN

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