

Dion Moulton – dion@thinkmoulton.com

OBJECTIVE	I want to work on projects that make the world a better place. I like multi-dimensional projects with realistic, accountable, and simple solutions to maximise occupant and ecological utility.
LOGISTICS	Sydney, Australia, Permanent Resident
EDUCATION	<i>Masters in Architecture</i> , University of Sydney 2014 – 2015 <i>Bachelor of Design in Architecture</i> , University of Sydney 2011 – 2013
NOTABLE EVENTS AND AWARDS	Presented on “Open-Source Architecture” at Design Futures Council, Australia, 2019 Pathfinder Award of Excellence for Creativity & Innovation in HDR, 2018 Presented “Stereotomy of Wave-jointed blocks” at <i>Rob Arch</i> conference, 2016 Paper “Stereotomy of Wave-jointed blocks” published in <i>Rob Arch</i> journal, 2015 Architectural research exhibited in <i>Research Visions</i> and <i>Fabricating Futures</i> exhibition, 2015 Twice awarded under Deans’ List of Academic Excellence, 2013, 2014 Awarded John Stephen Mansfield Prize in Urban Design and Planning, 2013 Awarded Burnham Prize in Urban Planning and Architecture, 2013 Awarded University of Sydney Academic Merit Prize, 2013 Accredited as a Gentoo Linux developer, to maintain CAD software packages, 2012 Design selected for University of Sydney Annual Architecture Catalogue, 2012 1 st place in Student Organised Network of Architects competition, <i>Cinematic Perception</i> , 2011 Duke of Edinburgh’s International Award ¹ , Gold Level, 2010 Mentor at Google Code-In, 2010 Selected to review book, <i>Blender 3D Architecture, Buildings and Scenery</i> , by Allan Brito, 2010 1 st Place KDE KPresenter (KOffice suite) template design competition, 2010 Full A* grades ² for Business, Physics, Math and Economics for A Levels, 2010 Best in Malaysia ³ for A level business studies, 2010 Community Sports Leadership Award, 2010 Best in the world ³ for AS level business studies, best in school ³ for AS level mathematics 2009 Twice led a team of 12 students to represent Malaysia in NASA-sponsored International Space Settlement Design Competition in Asia semifinals, 2008 and 2009
PROFESSIONAL EXPERIENCE	HDR , Architectural Graduate 2016 – present Worked in concept phase, design development, DA, tender, and construction documentation phases in both small and large, complex projects. Primarily worked in retail, residential and defence projects, but occasionally helped on commercial, hospitals, laboratories, and education projects. Responsibilities include concept design presentations, drafting, clash detection, and service coordination with all consultants. Addressed many challenges with compliance, changing designs, client management, and addressed damage control situations. Architectural visualisation of designs across all sectors for both competition and non-competition work, including static renders and virtual reality work. Applied computational techniques to streamline BIM processes, audit BIM data, validate client requirements, perform data visualisation, and GIS analysis. Both my architectural visualisation and computational design work is often used as a selling point in

¹The world’s leading youth achievement award (<http://www.intaward.org/>)

²A* being the highest possible grade

³Based on an examination conducted by Cambridge International Examinations Board covering all students in the UK and British International Schools globally

project bids and in marketing documents. I also conducted weekly training sessions to upskill staff on various computational and rendering techniques, and some of the techniques I have developed are used throughout the office.

University of Sydney, Researcher

2015 – 2016

Use photogrammetry and drone scanning to reconstruct and maintain heritage structures for the NSW Department of Public Works. Use parametric design to automate fabrication of masonry structures. Developed custom toolpath generation techniques for 6-axis robots for abrasive wire construction of ruled surface osteomorphic blocks.

Taught a semester's subject for 3D modeling and parametric design. Motion capture and panoramic video processing for studies in behavioural robotics.

University of Sydney, Student

2011 – 2015

Used post-occupancy surveys to inform and validate design decisions. Considered regenerative design for net-positive environmental contributions, including site hydrology, indigenous ecosystems, flora and fauna biodiversity.

SevenStrokes, CEO

2013 – present

SevenStrokes is not code monkeys for hire. Founded web development company using open-source collaboration practices. Partner with startups to develop both business models and technical solutions simultaneously. Projects include surgical visualisation, photo compositing and product customisation. Deploy Gentoo-based web, mail, collaboration, test & build automation infrastructure. Active as a full-stack developer, project leader, salesperson, and trainer. Projects include REST APIs (RMM Level 3), iOS/Android applications, film repositories, social photosharing, ecommerce and image processing. Projects have a usecase-driven design, use TDD (90% test coverage), have decoupled microservices built with PHP, Python and Javascript, uses SOLID principles, with continuous integration.

Medfilm, Software Developer & Founding Team

2013 – 2016

Was part of the founding team in a start up for Medfilm. Medfilm creates and surgical visualisation animations for patient education. I developed the subscription system and web video platform and provided technical support for hospital integration. As of 2019, Medfilm is used in 33 hospitals across Scandinavia in multiple languages, and is a profitable company.

Zygomatc Studios, Software Developer

2006 – 2016

PB Web Development, Software Developer

2013 – 2016

Omni Studios, Software Developer

2010 – 2013

Developed media repositories and animation work for public and private use. Provide consultation and implementation for legacy migrations, ecommerce, and API integration. Developed dozens of web applications, small and large, in-house and public, for government and private clients in Canada. Took initiative to design and implement business processes to improve quality of software output. Restructured company workflow with a long-term knowledge sharing strategy, growing the business with new development teams and clients from new markets.

Freelancer

2006 – present

Contribute to OpenStreetMaps open-source map data. Imagery contributions to OpenStreetCam. OpenBIM contributions to FreeCAD open-source BIM software. Contributions to Radiance rendering techniques and models. Built software for curriculum planning, CRMs, data center infrastructure management usability studies, personal project diary platform, and 3D animated TV advertisements. Web branding development for KDE. IRC support and occasional patches for FOSS software, including Gentoo, KDE, Twitter's pex, and payment gateways such as PayPal's Braintree and omnipay.

3D Graphics

Built first and ex-largest online 3D model repository for Blender. 3D and BIM work mentioned in various online news sites. Created world's first Radiance model repository and released assets

and prototypes under Creative Commons. Develop new validated rendering techniques not currently available in industry. Occasional short animations.

Music

Classical pianist and composer to LRSM level. Teach piano lessons. Five year musical director for the USyd Architecture Revue. Voted best revue band by Honi Soit magazine. Some jazz improvisation. Released music teaching scores under Creative Commons.

Charity

Musician and friend at aged care home. Bushcare volunteer. Men's shed volunteer. Mobile free clinic volunteer. Mentored under Australian Indigenous Mentoring Experience.

SOFTWARE

Creative

Revit, Photoshop, Illustrator, InDesign, Blender, Cycles, GIMP, Inkscape, Meshlab, CloudCompare, colmap, FreeCAD, JOSM, QGIS, Radiance

Technical

Lilypond, L^AT_EX, Gentoo, PHP, Javascript, Python, MySQL, HTML, CSS, Bash, CI, VCS, TDD/BDD

CREATIVE

<https://portfolio.thinkmoult.com/>

ARTICLES

<https://thinkmoult.com/>
<gopher://thinkmoult.com/>

REFEREES

Available on request.