

Phone: +1 778 316 7690 (Till November 30th)

+852 6791 6883 (After)

Email: lun@theweekendmaker.com

Github: cathug

// Design-related skills

3D and drafting software 2D graphic software Physical model making Machine operation Drafting Rhino, AutoCAD, Vectorworks Photoshop, Illustrator, InDesign

Study, physical and presentation models using wood, cardboard, plastics

3D printers, CNC machines, laser cutters, metal lathes Creating plans, sections, details, and elevations

// Computing skills (working-level proficiency)

Data analytics and machine learning Database programming C/C++ APIs Higher level Scripting

Jupyter-notebook, Pandas, Scikit-learn, Excel, Tableau MS-SQL (T-SQL) wxWidgets, OpenCV, MFC, sockets Matlab, Java, MiniSAT, IDP, Prolog Bash, Python

// Relevant research projects

Crossing Sacred Boundaries: fostering religious harmony in the 21st Century

- Explored four decades of Canadian Multiculturalism and concluded that the policy has led to a disconnect between host and immigrant communities.
- Proposed a spiritual marketplace that mitigates the "clash of cultures" in Canadian cities.
- Studied archetypes and liturgical elements representative of the seven most practiced religions in Canada.
- Incorporated resulting iconic elements in the design proposal for a multi-faith center in Downtown Surrey, BC, one of Canada's most ethnically and religiously diverse cities.
- Produced a complementary 10,000 word writeup for M.Arch. graduation requirement.

Forgotten interstitial spaces: underrated spaces beneath viaducts

- Reconnected Vancouver's unglamorous viaducts with its lost urban heritage.
- Shows that the void underneath viaducts can indeed form interstitial spaces that foster urban citizenship and hybrid identities, using Hong Kong's Canal Road as a case in point.

M.Arch Studio project evaluation based on Living Building Challenge 2.0 guidelines

- Evaluated an M.Arch studio project based on quiding principles in the Living Building Challenge 2.0 document.
- Created Excel spreadsheets that calculate heat gain/loss and water catchment for buildings. A building's carbon footprint can be optimized once approximation algorithms are implemented using VBA.

Webcam Weather Prediction

- Used regex expressions, Pandas, and Numpy to clean a 5,000 line weather dataset from Environment Canada.
- Manipulated and resized image arrays using Numpy and scikit-image.
- Fed results to scikit-learn machine-learning models to predict Downtown Vancouver weather.
- Produced a writeup documenting the steps involved to perform webcam weather prediction from scratch.

// Education

Bachelor of Science in Computer Science

Simon Fraser University, Canada (2014 – 2017)

Master of Architecture

University of British Columbia, Canada (2008 – 2011)

Honours Bachelor of Science, Chemistry and Asia-Pacific Studies Double Major

University of Toronto, Canada (2001 – 2005)

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// Related Work Experience

Contractor

Various August 2011 - December 2013, Vancouver, Canada

- Constructed study models for Jill Anholt Studio
- Used AutoCAD, Vectorworks, and Illustrator to produce working and construction drawings form FAB Architecture and Design, Intracorp Canada, and Lu Tang Architecture and Planning
- Used Rhino and Photoshop to produce 3d models and renderings for Robert Kleyn Architect and Froschauer Properties

Viva Vancouver (City of Vancouver)

Event contractor February 2013 – August 2013, Vancouver, Canada

- Liaised with engineers, planners, and insurance underwriters to ensure event comply with local bylaws and BC building code standards
- Distributed a press release to the media and received local coverage in free daily newspaper 24 hrs and local CBC Radio 1
 program Early Edition.
- Solicited funding from the Downtown Vancouver Business Association and received an additional \$3,000 grant to cover project expenses.
- Co-organized a small group of volunteers to help manage the site, ensuring safety guidelines in the public event safety document were implemented properly.

AFJD Studio

Production assistant July 2012 – November 2012, Vancouver, Canada

- Transcribed and summarized recordings, edited videos and photos for *La Lucha Sin Fin*, a project funded by the Jan Van Eyck Academie in the Netherlands.
- Set up computer hardware and video surveillance equipment for the *Surveillance* project.

AFJD Studio and Matthew Soules Architecture

Design Intern May 2012 – September 2012, Vancouver, Canada

- Assisted design leaders in developing a set of Pop Rocks, a field of urban furniture that transformed a city block in front
 of the Vancouver Art Gallery into a social and habitable space during the summer.
- Co-produced diagrams and drawings that illustrate design amendments and structural concepts, deliverables that were essential to securing a event permit by the project deadline.
- Put in charge of engineering a set of large scale fabrication tools which facilitated the filling of Pop Rocks in Mansonville Plastics polystyrene plant in Surrey BC.

// References

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Joe Dahmen

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Matthew Soules

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