TATIANA ESTRINA

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EDUCATION

Sept 2021 -
Present

Massachusetts Institute of Technology | Cambridge, Massachusetts
Master of Architecture (MArch)
+ Graduate Fellowship and Stipend
+ GPA: 5.0

Sept 2016 -
Apr 2021

Toronto Metrapolitan University (formerly Ryerson University) | Toronto, Ontario
Bachelor of Architectural Science, Co-Op, with Distinction (BArchSci)
+ Dean's List: 2016-2017 + 2018-2019 + 2020-2021 (GPA of 3.5 or higher)
+ Entrance Scholarship
+ Academic work displayed in the annual Year End Show of exceptional work in 2017 + 2018 + 2019 + 2021
+ GPA: 3.7

PROFESSIONAL EMPLOYMENT

Jun 2022 -
Sept 2022

Tesla | *Fremont, California* | Architecture & Design Intern
+ Upcoming position

Jun 2021

PARTISANS | *Toronto, Ontario* | Architectural Designer (Summer Intensive)
+ Collaborated on a competition proposal for the Canadian court house extension
+ Used AutoCAD, Illustrator, and Photoshop to produce presentation plans and elevations

Sept 2019 -
Aug 2020

PARTISANS | *Toronto, Ontario* | Architectural Designer (Co-Op)
+ Collaborated on the design and modeling in Rhino and Grasshopper for schematic and final digital modeling
+ Participated in client meetings, consultant meetings and construction site visits
+ Used Revit to complete construction drawings and details and coordinated drawings with different consultants
+ Generated scripts and Python code to optimize fabrication and reduce cost for the project by $ 20,000
+ Created standardized assets and instructional tutorials for the office about the use of Python in Grasshopper

May 2019 -
Aug 2019

Agathom Co. | *Toronto, Ontario* | Student Intern (Co-Op)
+ Collaborated on the iterative schematic design of residential projects
+ Fabricated iterative physical foam models
+ Created visualizations for clients using Revit, Rhino, V-Ray and Photoshop

May 2018 -
Aug 2018

Strasman Architects | *Toronto, Ontario* | Student Intern
+ Collaborated on the BIM model for transportation project using Revit
+ Created presentation imagery using AutoCad, SketchUp and the Adobe Suite
+ Modeled and rendered perspectives using 3Ds Max and Photoshop

ACADEMIC EMPLOYMENT

Jan 2022

Teaching Assistant for 4.02A: How to Design Intensive | *Cambridge, Massachusetts* | MIT SA+P
+ Organized presentations and workshops to introduce students to software, including Illustrator, Rhino, and Photoshop
+ Participated in desk critiques and final reviews, providing constructive feedback to students

May 2021 -	**NSERC USRA	*Toronto, Ontario*	Ryerson DAS**
Aug 2021	+ Led researched into mixed reality and its integration into the undergraduate curriculum
	+ Researched intersectionalities between architecture and video games
	+ Collaborated on the writing of two grant applications
	+ Created a 4D architectural video game to examine how games can aid students in their understanding of space

Sept 2020 -	**Research Assistant to Professor Terri Peters	*Toronto, Ontario*	Ryerson DAS**
May 2021	+ Further developed a Grasshopper script for design of multi-unit residential buildings taking environmental factors into account
	+ Collaborated with supervisor on a paper about the new typology for solar design
	+ Implemented additional facets of environmental design into the workflow, including energy use and ventilation
	+ Examined and created guides for future students about emerging parametric software platforms

Jun 2020 -	**Research Assistant to Professor Vincent Hui	*Toronto, Ontario*	Ryerson DAS**
May 2021	+ Developed models and software comparisons for implementation of VR in architectural pedagogy
	+ Collaborated on the writing and presentation of several papers regarding digital architectural education
	+ Researched and collaborated on data collection of architecture within the video gaming environment in the context of both architectural pedagogy and historical reconstruction

Jan 2020 -	**Research Assistant to Professor Terri Peters	Toronto, Ontario	Ryerson DAS**
Jun 2020	+ Developed a Grasshopper script for design of multi-unit residential buildings taking environmental factors into account
	+ Analyzed the spatial daylight factor in high-rise multi-unit residential buildings in Toronto

Sept 2018 -	**Research Assistant to Professor Vincent Hui	Toronto, Ontario	Ryerson DAS**
Apr 2019	+ Developed instructional videos and workflows for virtual reality and digital fabrication software
	+ Created a design proposal for an enclosure for the viewing of VR of indigenous architecture in museums
	+ Aided supervisor with the imagery, interview transcription and general typesetting layouts for his book
	+ Participated in a comparison of VR generating software based on their applications in the pedagogical realm

ACADEMIC SERVICE

Feb 2022 -	**Social Media Facilitator	*Cambridge, Massachusetts*	MIT SA+P**
May 2022	+ Maintained MIT Architecture's Facebook and Twitter accounts
	+ Provided support to set up and organization of lecture series

| Feb 2022 | **Portfolio Reviewer for AIAS Event | *Virtual* | Ryerson DAS** |
| | + Provided constructive feedback on student's portfolios |

| Nov 2021 | **Panelist for Masters Abroad Event | *Virtual* | Ryerson DAS** |
| | + Introduced students to the benefits and drawbacks of a masters degree abroad through a presentation and Q&A session |

| Dec 2021 | **Admissions Mentor | *Cambridge, Massachusetts* | MIT SA+P** |
| | + Aided assigned students with their graduate school application |

Aug 2020 -	**Co-Op Peer Advisor	*Toronto, Ontario*	Ryerson DAS**
Oct 2020	+ Created a series of presentations in order guide lower-year students with the development of their portfolios
	+ Provided individual feedback for all of the students on their portfolios for Co-Op job applications

Feb 2019	**Accreditation Assistant	*Toronto, Ontario*	Ryerson DAS**
	+ Complied program's assets and initiatives in order tor respond to accreditation criteria
	+ Curated the newly added "program performance criteria" portion of the exhibit by collecting, creating and displaying posters

| Feb 2018 | **Admissions Invigilator | *Toronto, Ontario* | Ryerson DAS** |
| | + Organized and monitored perspective architecture students as they were assessed for admission |

ACADEMIC AWARDS

Apr 2021 **Dennis Mock Leadership Award**
Recognizes a graduating student who made outstanding voluntary extracurricular contributions to their school or academic program department, their faculty, or to Ryerson University as a whole.

Apr 2021 **Innovation & Problem Solving Award**
Recognizes a student university-wide whose new thinking and approaches have had a positive impact on their employer, team and /or broader community *($100)*

Nov 2020 **Sepp Hannikainen Memorial Award**
Highest achievement in construction management *($1000)*

Nov 2020 **Minto Sustainability Award**
High achievement in design incorporating sustainable practices *($1000)*

Nov 2020 **Frank Leva Memorial Award**
For image making for an outstanding final design *($500)*

Nov 2020 **Fiberglas Canada Inc. Award**
For achievements in academics and extra-curricular activities *($957.28)*

Nov 2019 **Craig Race Model Award**
Most creativity and best technique in physical model construction *($1000)*

Nov 2018 **Norm Li Award**
Highest performance in 3D architectural visualization *($1500)*

Nov 2018 **CISC Ontario Region Award**
Highest overall performance in steel design *($3000)*

Nov 2017 **Alumni Award**
Highest overall performance in 1st year studio courses

JOURNAL ARTICLES

Aug 2021 **"Applications of Extended Reality Technologies within Design Pedagogy: A Case Study in Architectural Science"**
International Journal of Digital Society (IJDS), Volume 12, Issue 2, 2021
Co-Authored with V. Hui, A. Huang, G. Zhou

BOOKS + CHAPTERS

Forthcoming **Infonomics Society: "Learning and Teaching Methodologies"**
Chapter: Extended Realities to Extending Realities in Architectural Pedagogy
Co-Authored with V. Hui, A. Huang, G. Zhou

Dec 2019 **Routledge: "The Architecture Portfolio Guidebook" By Professor Vincent Hui**
Assembled and generated imagery, wrote text in appendix, transcribed interviews, worked on typesetting and cover design
Projects Featured: "Uproot", "Trans-Pier", "OCAD U Design School", "Tripix"
ISBN: 978-04-15-78704-8

CONFERENCE PROCEEDINGS PUBLICATIONS

Sep 2021 **"Architecture of Monumentality: A Critical Analysis of In-Game Representations of Washington D.C."**
SPACE International Conference 2022 on Architectural Culture and Society
Co-Authored with V. Hui and Y.W. Wong | Paper presented virtually

Sep 2021 **"A New Player has Entered the Game: Video Games in Architectural Education"**
eCAADe 2021: Towards a new, configurable architecture
Co-Authored with V. Hui and A. Huang | Presented virtually in Novi Sad

Jul 2021 **"Analyzing Indigeneity in Academic and Architectural Frameworks"**
International Conference on Education and New Developments 2021
Co-Authored with G. Zhou, L. Werdina, V. Kinuthia, S. Gao, S. Twarog | Paper presented virtually

Jul 2021 **"Transitioning Architectural Pedagogy into the Virtual Era using Digital Learning Methods"**
International Conference on Education and New Developments 2021
Co-Authored with V. Hui, A. Huang, K. Sarmiento | Paper presented virtually

Jun 2021 **"Implementation of Virtual Reality into Design Pedagogy: A Case Study in Architectural Science"**
Canada International Conference on Education
Co-Authored with V. Hui, A. Huang, G. Zhou | Paper presented virtually in Mississauga, Canada

Apr 2021 **"Zoom Off but Zoom In | The integration of video game technologies in architectural pedagogy in a physically distanced classroom"**
Architecture, Media, Politics Society: Teaching-Learning-Research: Teaching in a Time of Change
Co-Authored with V. Hui, A. Huang, S. Gao | Paper presented virtually in New York, USA

Apr 2021 **"Multi-Objective Optimization in MUBS: Developing and Testing a New Design Workflow"**
simAUD
Lead-Authored with T. Peters | Paper presented virtually

Apr 2021 **"Pedagogical Potential of Video Games in Architectural Education "**
International Online Architectural Design Conference
Co-Authored with V. Hui, A. Huang, L. Werdina | Paper to be presented virtually in Calgary, Canada

Mar 2021 **"The Digital Design Build: Modes of Experiential Learning in the Pandemic Era"**
International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA 2021): Projections
Lead-Authored with V. Hui and L. Ma | Paper presented virtually in Hong Kong

Jan 2021 **"Extended Realities as Methods of Representation within Architectural Pedagogy"**
International Conference on Education of Social Sciences
Lead-Authored with V. Hui

Nov 2020 **"Revitalizing Architectural Studio Culture in a Digital Learning Era"**
Architecture, Media, Politics Society: Teaching-Learning-Research: Design and Environments
Co-Authored with V. Hui and Alvin Huang | Paper presented virtually in Manchester, United Kingdom

Nov 2020 **"Creative Connections: Maintaining studio culture in an age of physical separation"**
International Conference for Research, Education, and Innovation
Co-Authored with V. Hui, A. Huang | ISBN: 978-84-09-24232-0, Paper presented virtually in Seville, Spain

Nov 2020 **"Online Design Education: Uncovering the Pedagogical Digital Divide in the Pandemic Era"**
International Conference for Research, Education, and Innovation
Co-Authored with V. Hui, A. Huang | ISBN: 978-84-09-24232-0, Paper presented virtually in Seville, Spain

Oct 2020 **"Virtual Reality as a Response to Emergent Challenges in Architectural Education"**
International Conference on Advances in Education
Co-Authored with V. Hui, A. Huang, S. Ağma | ISBN: 978-605-06286-0-9

Jan 2020	**"Integrating Indigenous Archaeology into Contemporary Architectural Pedagogy"**
	Hawaii University Conference for Arts, Humanities, Sciences and Education
	Co-Authored with V. Hui, G. Zhou, S. Lee	ISSN: 2162-917X, Paper presented in Honolulu, USA
Jan 2020	**"Architectural Accessibility and Pedagogy Via Virtual Reality Integration"**
	Hawaii University Conference for Arts, Humanities, Sciences and Education
	Co-Authored with V. Hui, G. Zhou, S. Lee, V. Kinuthia	ISSN: 2162-917X, Paper presented in Honolulu, USA
Nov 2019	**"Integrating Indigenous Archaeology into Contemporary Architectural Pedagogy"**
	International Conference for Research, Education, and Innovation
	Co-Authored with V. Hui, K. Sarmiento, S. Lee	ISBN: 978-84-09-14755-7
Nov 2018	**"Experiential, Experimental and Entrepreneurial Pedagogy: Creating an Infrastructure for Safe Failure"**
	International Conference for Research, Education, and Innovation
	Co-Authored with V. Hui, S. Mahbub, Y. Koroteyeava	ISBN: 978-84-09-05948-5, Paper presented in Seville

CONFERENCE PRESENTATIONS + WORKSHOPS

Jun 2021	**Smart Geometry**
	Pittsburgh, USA	Contributor to the planning of the Mixed Reality Craftsmanship Cluster
Jun 2021	**DigitalFutures**
	Virtual	Atendee of New Veils: Couture and Architecture
Apr 2021	**Architecture, Media, Politics Society: Teaching-Learning-Research: Teaching in a Time of Change**
	New York, USA	Co-Presenter with A. Huang, S. Gao
	*"Zoom Off but Zoom In	The integration of video game technologies in architectural pedagogy in a physically distanced classroom"*
Apr 2021	**simAUD**
	Online	Presenter
	"Multi-Objective Optimization in MUBS: Developing and Testing a New Design Workflow"
Apr 2021	**Conference on Technology, Knowledge, and Society**
	Virtual in Melbourne, Australia	Co-Presenter with V. Hui and A. Huang
	"Creative and Collaborative Quarantining"
Mar 2021	**International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA 21): Projections**
	Virtual in Hong Kong	Co-Presenter with L.Ma, V.Hui + Attendee of Deep Design Workshop
	"The Digital Design Build: Modes of Experiential Learning in the Pandemic Era"
Dec 2020	**Architecture, Media, Politics Society: Teaching-Learning-Research: Design and Environments**
	Manchester, London (Online)	Co-Presenter with A. Huang
	"Revitalizing Architectural Studio Culture in a Digital Learning Era"
Nov 2020	**International Conference for Research, Education, and Innovation**
	Seville, Spain (Online)	Co-Presenter with A. Huang
	"Online Design Education: Uncovering the Pedagogical Digital Divide in the Pandemic Era"
	"Creative Connections: Maintaining studio culture in an age of physical separation"
Oct 2020	**eCampus Ontario: Technology and Education Seminar and Showcase**
	Toronto, Canada	Co-Presenter with V. Hui
	"Immersed and Engaged: The Pedagogical Value of Virtual Reality"

Oct 2020	**ACADIA: Distributed Proximitie**s Online | Attendee of conference + Generative Physics workshop
Feb 2020	**Solemma Symposium** Los Angeles, USA | Attendee of conference + workshop
Jan 2020	**Hawaii University Conference for Arts, Humanities, Sciences and Education** Honolulu, USA | Co-Presenter with V. Hui, G. Zhou, S. Lee, V. Kinuthia *"Architectural Accessibility and Pedagogy Via Virtual Reality Integration"* *"Integrating Indigenous Archaeology into Contemporary Architectural Pedagogy"*
Oct 2019	**International Conference on Emerging Technologies in Architectural Design** Toronto, Canada | Attendee
Nov 2018	**International Conference for Research, Education, and Innovation** Seville, Spain | Co- Presenter with S. Mahbub, Y. Koroteyeava *"Experiential, Experimental and Entrepreneurial Pedagogy: Creating an Infrastructure for Safe Failure"*

COMPETITION HONORS

Aug 2021	**ACSA/AISC Steel Student Design Competition** | Honorable Mention, Category II: Open Awarded for "Marche du Pont" Project
Aug 2020	**ACSA/AISC Steel Student Design Competition** | 2nd Place, Category II: Open *($1500)* Awarded for "Hart Island Ossurary" Project
Aug 2019	**ACSA/AISC Steel Student Design Competition** | 2nd Place, Category I: Transportation Hub *($1500)* Awarded from "Trans-Pier" Project
Aug 2018	**ACSA/AISC Steel Student Design Competition** | 1st Place, Category II: Open *($2000)* Awarded from "Uproot" Project
Aug 2018	**Archasm Tokyo Anti - Library Competition** | Honourable Mention Awarded for "Library of Spaces" Project
Aug 2018	**CTBUH International Student Tall Buildings Design Competition** | Semi-Finalist *(Top 25)* Awarded for "Uproot" Project
Jun 2017	**CISC Student Steel Design Competition** | Award of Merit *($2000)* Awarded for "Pier 365" Project

INSTALLATIONS + EXHIBITIONS

Jan 2021	**DesignTO: "Distorted Projections" | 325 Church Street, Toronto | Independent Project** + Developed a projection-based proposal in order to allow for a digital experiential installation amid the COVID-19 pandemic + Learned new software and coding languages in order to develop interactive proposal + Worked with volunteers to fabricate the physical components of the project
Jul 2019	**Archeology Alive Exhibit | Whitchurch-Stouffville Museum, Stouffvile | Design Lead** *Awarded the Ontario Museum Association Award of Excellence in Exhibitions* + Worked with the clients through meetings and site visits to develop the design of longhouse enclosure + Researched traditional indigenous and modern construction methods and applied to project's design

Jan 2019	**Icebreakers: "Tripix"	HTO Park + Nathan Phillips Square, Toronto	Design Lead + Fabrication Lead**
	+ Developed a design proposal with a team of five students
	+ Created all parametric iterative digital models of designs
	+ Generated fabrication files using script written in Grasshopper based on as built conditions
	+ Assembled and fabricated final installation both in the dry run and on site

Apr 2018	**Grow Op: "Stratum"	Gladstone Hotel, Toronto	Project Lead**
	Awarded the Grow-Op Seed Development Award ($200)
	+ Worked with a team to create a design proposal and revised proposal to make it feasible
	+ Worked out costing, materials and scheduling and Created test samples with different material choices
	+ Led a team of volunteers to fabricate project in timely fashion

Jun 2017	**Gem Bijou Store Expansion	Simone Place, Toronto	Design Team Member**
	Design Selected for Construction ($1000)
	+ Worked with a team of three students to develop a proposal for the design of the expansion of a jewelry store
	+ Responsible for the design, 3D digital model, VR visualization and diagrams

Apr 2017	**Vision Conference Signage	Design + Fabrication Team Member**
	+ Worked with a team to design signage for the Vision Conference
	+ Used foam forming, laser cutting and painting to fabricate the signage installation

PUBLICATIONS

Apr 2022	**Thresholds 50: Before // After**
	Project Featured: "The Metamorphosis of the Polysapien" (as supporting imagery)

Nov 2021	**Architectural Record: "Vela by PARTISANS"**
	Project Featured: "Vela" (from professional internship)

Aug 2021	**Toronto Architectural Guide: A Ryerson Coloring Book**
	Assembled imagery, typesetting, layout, generated graphics and sketches
	Sketches Featured: "Casa Loma", "Hockey Hall of Fame", "Old City Hall"

Jan 2019	**Archdaily: "Ice Breakers Public Art Winter-Wonderland Returns to Toronto"**
	Project Featured: Icebreakers "Tripix" Installation

Sep 2018	**Designlines: "A Ryerson Student Reimagines Abandoned Mines as Agricultural Hubs"**
	Project Featured: "Uproot"

Apr 2018	**Toronto Life: "Look at the Eco Art taking over Gladstone"**
	Project Featured: Grow Op "Stratum" Installation

2018, 2019, 2020, 2021, 2022	**325 Magazine**
	Projects Featured: "Pier 365" + "Trekking Cabin" + "OCAD U Design School" + "Cave House" + "Hart Island Ossuary" + "A House for J.S. Bach"

EXTRA-CURRICULAR INVOLVEMENT

May 2018 - Apr 2019	**Architecture Society (arc.soc)	Ryerson DAS	Projects Executive (elected)**
	+ Attended team meetings to decide on funding for projects
	+ Participated in the Extra-Curricular Committee Meetings to decide which projects would receive departmental resources

Aug 2018 - Sept 2019	**Timber Fever Design Competition	Ryerson DAS	Mentor and Special Guest Coordinator (appointed)**
	+ Contacted professionals and organized their participation in the event

Feb 2017 - May 2019	**Year-End Show Committee	Ryerson DAS	Exhibition Coordinator (appointed)** + Compiled the projects selected for display + Installed and organized the first year, second year and Extra-Curricular displays
2017 - 2019	**Architecture Course Union	Ryerson DAS	Mentor (appointed)** + Provided guidance to several lower year students with their projects and schooling as part of the mentorship program
Oct 2019	**American Institute of Architecture Students	Ryerson DAS	Tutorial Host (elected by committee)** + Planned and led a series of tutorials instructing students on how to use Rhino

GRANTS

Apr 2022	**The Harold Horowitz (1951) Student Research Fund** To develop "The Polysapien" project ($1000)
Mar 2022	**CAMIT Seed Grant** To develop "The Polysapien" project ($500)
Jul 2020	**NFRF New Frontiers Grant** Written with Vincent Hui and Alvin Huang ($4,000,000)
Oct 2020	**NSERC Discovery Grant** Written with Vincent Hui ($250,000)
Jul 2021	**BEHER Grant** Written with Vincent Hui, Yahweh Wong, Lena Ma, Tapenga Paert ($250,000)
Aug 2021	**NSERC Promo Science Grant** Written with Vincent Hui, Yahweh Wong, Lena Ma, Tapenga Paert ($250,000)

SKILLS

3D Modeling
Rhino 3D 5.0/6.0/7.0, Grasshopper (with various plug-ins), SketchUp 2020

Rendering
3Ds Max 2021, V-Ray 2.0/3.0/4.0/5.0, Enscape, Corona Render

Drafting
AutoCAD 2021, Revit 2021, Dynamo, Bluebeam

Simulation
Ladybug, Bumblebee, DIVA, ClimateStudio

Motion Graphics
Unity 3D, Maya 2021, TouchDesigner

Adobe Suite CC
Photoshop, Illustrator, InDesign, Flash, After Effects, Premiere

Microsoft Office Suite 2021
Word, PowerPoint, Excel, OneNote, Outlook

Computer Languages + Robotics
Java, C#, C++ CSS, JavaScript, Python, GLSL, Arduino

Digital Fabrication
CNC Routing with RhinoCAM & MasterCAM, Laser-Cutting, 3D Printing

Languages
English *(Native)* , Russian *(Fluent)* , French *(Proficient)* , Spanish *(Beginner)*