SERGIO EDUARDO MUTIS ORDÓÑEZ

Researcher & Computational Designer | Colombian National

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EDUCATION

2024 – 2026
Boston, USA

Master of Science in Architecture Studies in Computation (SMArchS)
Massachusetts Institute of Technology (MIT)

Academic Honors:
- Department of Architecture Fellowship – April 2024
- Colfuturo Grant – May 2024

2021 – 2022
London, UK

Postgraduate Master's Degree in Architectural Design (computation, robotics, and A.I. tracks)
The Bartlett School of Architecture, University College London (UCL)

Academic Honors:
- Bartlett AD Gold Medal – Oct 2022 *(best among 32 total graduation projects)*
- Bartlett AD Thesis Report Medal – Oct 2022 *(best among 126 total reports)*
- Rowland Scholarship – Aug 2021
- William Goodenough Scholarship – Jul 2021
- Colfuturo Grant – Jun 2021
- UCL Academic Excellence Scholarship – Jun 2021

2013 – 2019
Bogotá, Col

Bachelor's Degree in Architecture (5-year degree)
Pontificia Universidad Javeriana

Academic Honors:
- 1st Place – National Thesis Competition – Nov 2019
- Order of Academic Merit – Mar 2019
- 1st Place in 77-Student Graduation Cohort (GPA 4.8/5.0) – Mar 2019
- PUJ Academic Excellence Grant – 2013-2018 *(received 8 times)*
- Athletes' Academic Excellence Distinction – Jun 2016
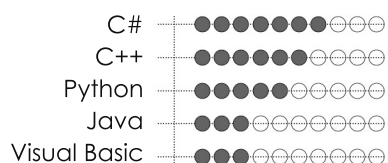- Distinguished Admission Scholarship – Aug 2013

SPECIALIZED TRAINING

Mar 2022
London, UK

The AA – AA MARS, Extreme Environment Architectural Design
2-week workshop at the Architectural Association School of Architecture

Jan – Dec 2021
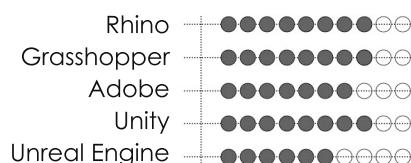*Boston, USA*

Harvard University – Computer Science for Game Development
Professional certificate at EdX by Harvard University

SKILLS & LANGUAGES

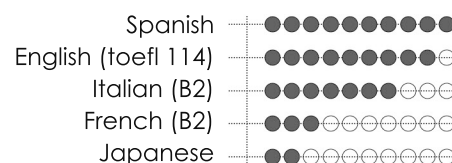| Programming		Software		Languages	
C#	●●●●●●●○○○	Rhino	●●●●●●●●○○	Spanish	●●●●●●●●●●
C++	●●●●●●○○○○	Grasshopper	●●●●●●●●○○	English (toefl 114)	●●●●●●●●●○
Python	●●●●●○○○○○	Adobe	●●●●●●●○○○	Italian (B2)	●●●●●●●○○○
Java	●●●○○○○○○○	Unity	●●●●●●●●○○	French (B2)	●●●○○○○○○○
Visual Basic	●●○○○○○○○○	Unreal Engine	●●●●●○○○○○	Japanese	●●○○○○○○○○

PROFESSIONAL LICENSE

Apr 2019 – present ✕ **Architect License**
National Professional Architecture Council of Colombia

PROFESSIONAL EXPERIENCE - ACADEMIA

Nov 2022 - present ✕ **Imperial College London (ICL) & The Royal College of Art (RCA)**
London, UK Visiting Tutor - Innovation Design Engineering MSc/MA

• Tutor students in the development of their second-year individual and group projects at the joint MSc (ICL) and MA (RCA) Innovation Design Engineering program.
• Provide specialized critique and guidance at the intersection of the fields of architecture, mechatronics, reinforcement learning, and digital fabrication.

Sep 2022 - present ✕ **The Bartlett School of Architecture, University College London (UCL)**
London, UK Researcher / Technical Tutor - Living Architecture Lab

• Structure and teach the robotics and computation module at B-Pro AD M.Arch.
• Critique graduation project development in weekly studio desk-crits.
• Guide students on cyber-physical control systems, robotics design and fabrication, and development of simulation and digital twin environments in ad hoc sessions.
• Develop autonomous spatial reconfiguration systems with distributed robotics, custom simulation environments, generative algorithms, and multi-agent reinforcement learning.

PROFESSIONAL EXPERIENCE - INDUSTRY

Apr 2023 - present ✕ **Zaha Hadid Architects**
London, UK Researcher – Computational Design Applied Research Group (ZHA CODE)

• Participate in the computational design and delivery of architectural projects across the world, providing specialized expertise in parametric and procedural design, interactive systems design and optimization for gaming or metaverse environments, and parametric rationalization of complex geometry for construction, among others.
• Research and test robotic fabrication and assembly workflows at the ZHA Tech Lab.
• Develop custom tools for procedural computational design, analytics, and automation.

Sep2020 - Sep 2021 ✕ **GrupoValor**
Bogotá, Col Director of Research and Innovation in Architectural Design

• Developed workflows for systematic design innovation, including parametric design optimization in Dynamo and VR applications for sales and construction, and designed a series of social-housing, mixed-use, and residential architecture projects in Latin America.

Mar2019 - Sep2020 ✕ **AEI Spaces**
Bogotá, Col Architect
• Designed diverse projects across Latin America, from concept design to construction, while conducting client presentations, construction monitoring, and BIM meetings.

Jan – Jun 2018 ✕ **OAB. Office of Architecture in Barcelona** *(led by Carlos Ferrater)*
Barcelona, Spain Architectural Design Intern

Jul – Dec 2017 ✕ **Duda-Paine Architects**
Durham, NC, USA Architectural Design Intern

SELECTED WORKSHOPS (TAUGHT)

Jan-Feb 2023 & 2024
London, UK
× **Encoded Assemblies: encoding, simulating, and stimulating autonomous bottom-up digital architectures.** with the Living Architecture Lab at the Bartlett, UCL. Postgraduate A.D. M.Arch.

Oct-Dec 2022 & 2023
London, UK
× **Embodied Assemblies: form-finding, digitally-fabricating, and testing robotic-material ecologies of self-reconfiguration.** with the Living Architecture Lab at the Bartlett, UCL.

Jul-Aug 2023
London, UK
× **Procedural Architectural Design for the Immersive Multi-Player Internet**
with Zaha Hadid Architects' Computation & Design Research Group (CODE) for Digital Futures

SELECTED PAPERS & PUBLICATIONS

Sep-Dec 2023
Chicago, USA
× **Exhibition Feature - Chicago Architecture Biennial**
Zaha Hadid Architects and ArchAgenda. 2023. "Metrotopia Metaverse: Knowledge Transfer," Metaverse Exhibit in the *5th Chicago Architecture Biennial* "This is a Rehearsal,"

Jun-Dec 2023
Venice, Italy
× **Exhibition Feature - Venice Biennale of Architecture**
Zaha Hadid Architects and ArchAgenda. 2023. "Metrotopia Metaverse: Laboratory of the Future" In the *18th Venice Architecture Biennale*, physical exhibition at Palazzo Ca Zenobio, Venice, Italy

Nov 2023
Hong Kong, China
× **Exhibition Feature - Hong Kong University, ACADIA X CAADRIA Joint Exhibition**
Mutis, S., Hughes, E., Ibrahim, F., Papoutsi, G. 2023. "Diffusive Habitats." In Habits of the Anthropocene: ACADIA X CAADRIA Joint Exhibition, November 14-29. Hong Kong University.

Oct 2023
Denver, USA
× **Research Paper - ACADIA**
Hosmer, T., Mutis, S. Hughes, E. et al. 2023. "Autonomous Collaborative Robotic Reconfiguration with Deep Multi-Agent Reinforcement Learning (ACRR+DMARL)." In *ACADIA Conference 2023*.

Oct 2023
Denver, USA
× **Research Paper - ACADIA**
Mutis, S., Hughes, E. et al. 2023. "Diffusive Habitats." In *Proceedings of the ACADIA Conference 2023*, Denver: University of Colorado Denver.

Oct 2023
Risaralda, Col.
× **Keynote - Colombian Congress of Architecture and Urbanism**
Mutis, S. "Autonomous Architectures, habitat explorations in design, robotics, and A.I. " Keynote in the *XVIII Colombian Congress of Architecture and Urbanism*. Colombian Society of Architects.

Jul 2023
London, UK.
× **Exhibition Feature & Keynote - London Festival of Architecture**
Mutis, S., Durand, J., Keerti, M. 2023. "Phygital Assemblies at ZHA's Computation & Design Research Group". with ZHA CODE. London Festival of Architecture 2023. ZHA Gallery.

Nov 2022
London, UK
× **Keynote - Imperial & The Royal College of Art's Innovation Design Engineering Seminar**
Mutis S. "Mechatronic Habitats". In *The Innovation Design Engineering Seminar*. Imperial College London & The Royal College of Art. London, UK.

Oct 2022
London, UK
× **Book Feature - Bartlett B-Pro Book 2022**
Mutis, S. 2022. "Diffusing Babel, Recreating an Authorship Model for Living Architecture." In *The Bartlett School of Architecture B-Pro Show Book 2022*, 1st ed., 116. London, UK.

Nov 2020
Bogotá, Col
× **Book Feature & Keynote - Colombian Bienale of Architecture**
Mutis, S. 2020. "Hábitat para Población Vulnerable" In *XXVII Bienal Colombiana de Arquitectura y Urbanismo 2020*, edited by M. Uribe, 413. Colombian Society of Architects. ISSN 2500-7408.

SELECTED COMPETITIONS & AWARDS

Oct 2023 *Paris, France*	**Paris Design Awards – Emerging Designer of the Year** Hosted by In-Between Collective
Sep 2023 *Melle, Germany*	**Design Educates Awards – Winner in Responsive and Universal Design** Jury led by Prof. Toyo Ito and Prof. Achim Menges.
Jul 2023 *Milano, Italy*	**A' Design Award – Winner in Generative, Algorithmic, and AI-Assisted Design** Hosted by Milano Design Museum and Como Design Society
Nov 2021 *Los Angeles, USA*	**A+D Awards – In-School Award Winner** Hosted by the A+D Museum
Oct 2021 *International*	**Young Visionary Architecture Competition – First Place** Hosted by Standout Archi
Jun 2021 *Paris, France*	**Paris Design Awards – Emerging Architect of the Year** Hosted by In-Between Collective
Apr 2021 *India*	**Rethinking the Future Awards – Housing & Territory Award** Hosted by Re-Thinking the Future Awards
Feb 2021 *Irak*	**Tamayouz Excellence Award - International Graduation Projects** Hosted by Tamayouz
Nov 2020 *Bilbao, Spain*	**Architecture MasterPrize – Best of Best Academic Award** Hosted by the Guggenheim Museum Bilbao
Oct 2020 *Bogotá, Col*	**Colombian Biennale of Architecture – Student Award** Hosted by the Colombian Society of Architects
Oct 2020 *India*	**Gaudi Architecture Prize – Residential Building Award** Hosted by Silk Matters
Nov 2019 *Bogotá, Col*	**National Architecture Thesis Competition – First Place** Hosted by the Colombian Society of Architects

VOLUNTEER EXPERIENCE

Oct 2017 - present *Across Colombia*	**Apata Colombia** Co-Director, Wilderness Guide • Lead the eco-social organization to fulfill its goal of preserving Colombia's natural sites and stimulate lasting peace in the context of the Colombian post-conflict. • Assisted the Almeciga community of Chingaza and the FARC excombatant community of San Juanito in their transition from endemic deforestation and warfare into eco-touristm. • Winners of the 2021 National Impact Generation Award – Nov 2021 • Finalists of the 2022 & 2023 Peace Entrepreneurship Award – Nov 2022 & Nov 2023
Feb – Jun 2016 *Bogotá, Col*	**Prosofi Marginal Neighborhood Aid Initiative** Architecture Student Group Leader
Mar 2016 *Cali, Colombia*	**Community Public Space Enhancement Volunteer Workshop** Volunteer