Jean-Marc Gauthier - Curriculum Vitae

Jean-Marc Gauthier, Associate Professor and Program Director of Virtual Technology and Design,
Supervisor and team leader of VRLab,
Department of Design and Environments,
College of art and Architecture, University of Idaho.

https://www.uidaho.edu/caa/programs/virtual-technology-and-design/our-people/jean-marc-gauthier

Degrees:

Master, New York University, New York, NY, Interactive Telecommunication Program
Architecte DPLG, Ecole Nationale Superieure d'Architecture, Paris Belleville,

Experience:

2016 - present. Associate Professor, Virtual Technology & Design, College of Arts and
Architecture, University of Idaho,
2010 - 2014. Associate Arts Professor, Animation & Digital Arts
MFA, Tisch Asia, New York University, Singapore
2008 - 2010. Assistant Arts Professor, Animation and Digital Arts
MFA, Tisch Asia, New York University, Singapore
2001 - 2007. Assistant Arts Professor, ITP, Tisch School of the Arts, NYU, New York
1998 - 2000. Adjunct, ITP, Tisch School of the Arts, NYU, New York,
1998 - 2000. Middle school teacher, Chapin School, NY
1986 - 1998. Principal, *Jean-Marc Gauthier Architecte, DPLG*, architectural studio (10
employees), Paris, France.

Academic Administrative Appointments:

2020 - present. Director, Virtual Technology and Design, College of
Arts and Architecture, University of Idaho
2018 - present. Supervisor, Virtual Reality Lab (VRLab), Virtual TecUniversity of Idaho
2023 - 2024. Chair of Faculty Senate, University of Idaho
2010 - 2014. Chair, Animation & Digital Arts MFA program, Tisch Asia, NYU, Singapore,
2008 - 2010. Director Animation and Digital Arts MFA program, Tisch Asia, NYU, Singapore,

Non-Academic Employment:

2018 - present. Team partner, *Autobotik* - consultancy, design boutique,
2014 - 2018. Managing Director, *Tinkertoo* - interactive design studio,
1999 - present. Founder/Principal, *Tinkering* - animation, virtual reality & visualization,
1986 - 1998. Founder/Principal, *Jean-Marc Gauthier Architecte, DPLG*, Paris, France.

Entrepreneurship and Consulting:

Autobotik, Artificial Intelligence, Human Machine Interface and Virtual Reality (Digital Twins) projects,
2019 - present. Tinkering et al, Assisted Navigation in Virtual Worlds Using Neural Networks, technology
integration,

2017 - 2018. Dr Liu, University of Alabama / Tinkering, Simulation of Eye Gaze, 3D visualization / animation
2017 M3Robotics Lab, Washington State University / Tinkering, 3D visualizer/animator,
2017 - Tinkertoo, Automotive Design, lead designer,
2014 - 2017. SKOW / Tinkertoo, Interactive Videos on the Web, web design / animation, 2014
Tinkertoo, Interactive Jewelry Toolkit, interactive design,
Tinkering, Traffic simulator, technology integration,
2013. Dr. Liu, University of Alabama, Birmingham / Tinkering, Crossroads. 3D dynamic simulator of traffic, technology integration /animation, 2012
Infinite Fields / Tinkering, Motion capture, motion capture consultant - technology integration,
M. Stoeckle, Rockefeller University / Tinkering, Genetic diversity of world's Bird species. 3D interactive tool,
2008. Harold Clurman Theater / Tinkering, Stone Cold Dead Serious. Machinima / interactive animations,
2007. Dr. P. Kelly, Dept. of Neurosurgery, NYU Medical Center, technology integration,
2006. MAMAC / Tinkering, design and construction of crawling and flying, technology integration/animation,
2004. Sia- TV / Tinkering, cellular phone interface for virtual worlds, Sia Sistemas, technology integration.

Areas of Specialization:

Digital design, animation, virtual reality, 3D modelling, visual effects, product design, industrial design, storytelling, simulation, technology integration, robotics, user experience, user interface design, human machine interface, design thinking, architecture, film, art history, digital content production.

Undergraduate Courses:

Animation Film Production,
Seminar: History and Applications of Virtual Reality,
Seminar: Theory and Applications of Virtual Reality,
Virtual World Building,
Lighting and Materials,
Virtual Design
Animation and Visual Effects,
Capstone studio, "Entertainment and storytelling"

Graduate Courses:

Master's Research and Thesis,
Non-thesis advisor for C. Reitcheck, Keep Your Language in Your Back Pocket:Using Internet Connected and Mobile Technologies for Language Revitalization in Idaho,
Non-thesis advisor for K. Stenzel, Developing a Digital Media Curriculum for High School Students,
Non-thesis advisor for S. Frank, The Full Potential Utilizing Virtual Reality (VR) Technology for Enhancing Educational Support In Children with Learning Disabilities,
Non-thesis advisor for Trevor Humble, Advisor for D. Zepeda, and J. Duree.

Developing Standards of Production for the Program
Using virtual agents in VR with AI 2024
Real-time motion capture of hands and fingers 2024 Real-time VR on smartphones, tablets and iPads
Real-time motion capture in VR, lab and equipment with Brian Cleveley,
Multi-player virtual world for remote communication and teaching,
Creating virtual instruments in VR
Building virtual movie camera rigs in VR

Courses Developed:

Animation Film Production,
Seminar: History and Applications of Virtual Reality,
Seminar: Theory and Applications of Virtual Reality,
Virtual World Building,
Lighting and Materials,
Virtual Design,
Animation and Visual Effects,
Capstone class, "Entertainment and storytelling",
Master's Research and Thesis,

Workshops, Seminars, Lectures:

NASA Digital Twins for Cislunar and Lunar Surface Ecosystem Workshops. In collaboration with JPL, Aerospace Corporation, APL, NVIDIA, and NASA Langley.

Research and Development workshop on Mechatronics Technologies for Mobility (Switzerland), 2012.

Future of mobility, (Paris, France), 2018.

Online VTD Lab, student mentoring
Online VTD Friday Talks, monthly talks by industry people,
Ideation sessions with faculty
VTD Workshop, Summer Design Days, 2019- 2022
VTD's Innovation Seminar
VTD Professional Development Program
Design Days, high school student workshops

Books:

JM Gauthier, *Interactive storytelling.* Book chapter contributor [2012] International Symposium on Diversifying Film and Digital Media, Hongik University

Andrew Graham, *Game Art Complete*. Book chapter contributor [2009] Focal Press, Elsevier

JM Gauthier, *Diseno Animado Interactivo en 3D*. Author [2005] Anaya Multimedia

JM Gauthier, *Building Interactive Worlds in 3D*: Virtual Sets and Pre-visualization for Games, Film & the Web. Author [2005] Focal Press, Elsevier

Le Corbusier Unite d'Habitation de Marseille. Contributor [2005] Editions Parentheses

JM Gauthier, *Creating Interactive Actors and their Worlds*. Author [2001] Morgan Kaufman Publishers

Hospitable Architecture. Book chapter contributor [1994] Van Nostram Reinhold Publisher

Hospitable Design for Healthcare and Senior Communities. Book chapter contributor [1992] Van Nostram Reinhold Publisher

Lieux de Fin de Vie. Book chapter contributor [1987] Editions du Moniteur

Papers:

JM Gauthier, FB Wróblewski. **Augmenting Virtual Lunar Terrain With Procedural And Machine Learning Models In Real-Time,** 54th Lunar and Planetary Conference 2023, Lunar Surface Science LPI Contribution Number 2806, https://www.hou.usra.edu/meetings/lpsc2023/pdf/2916.pdf

JM Gauthier, **Moments in Nature** (MiN), SA '22: Proceedings of the SIGGRAPH Asia 2022. Publication May 2023 Real-Time Live! Article No.: 2 https://doi.org/10.1145/3550453.3570126 . Peer Reviewed

JM Gauthier, **Long Takes, a Way of Narration in Virtual Reality**, Gauthier, JM. Paper accepted in 2021 for peer reviewed publication in Disegno Journal.

JM Gauthier, **Adaptation in Virtual Worlds**, Gauthier, JM. In OPEN ACCESS Publishing Series on PROJECT | Essays & Research, Palermo University Press, Italy, 2020 https://doi.org/ 10.19229/978-88-5509-096-4/392020

JM Gauthier, **The Dynamic Virtual Protein project**: Visualization, Interaction and Collaboration in Virtual Reality, Gauthier, JM., Patel, J., McGrath I. In 25th ACM Symposium on Virtual Reality Software and Technology (VRST'19), November 12-15, 2019, Parramatta, NWS, Australia. ACM, New York, NY, USA. DOI: 10.1145/3359996.3365050. ISBN 978-1-4503-7001-1/19/11

JM Gauthier, **3D Modeling and Participatory Sensing** - Sensing Cities and Designing New Driving Experiences, 2014, Geospatial World Forum 2014, Geneva, Switzerland

JM Gauthier, **3D Interactive Stories for the City**, 2013, Asia Geospatial Forum 2013, Kuala Lumpur, Malaysia (Abstract) Gaming Back to the Basics, 2008, Siggraph Asia (Paper)

JM Gauthier, **From Motion Capture to Interactive Animation**, 2008, Siggraph Asia (Paper) Entertaining Lessons: Applying Gaming Technology To The Virtual Patient, 2005, Slice of Life 2005, Portland, OR. (Paper)

JM Gauthier, **Conceptual Design Of Virtual Cameras**: How to design self-determined virtual cameras, 2004, Design Computing and Cognition, MIT, Cambridge, MA. (Paper)

Animations and Films:

Fire Danger (2024). Public announcement animations created for the Fire Danger group at University of Idaho and the US Forest Service. Created by Jean-Marc Gauthier in collaboration with Payton Finney and Ciara Bordeaux. On-line at https://vimeo.com/935642673

Be City (2014) Director and animation, Singapore.

Carrot Cake (2012,) Co-Producer, Lucasfilm ILM Singapore and Tisch Asia, Singapore

From Dust to Dust (2009) Animation. Director: Melvin Motti, New York

I Remember Me (2002) Animation. Director: K. Snyder, New York

The Diary (1981) Assistant. Director: David Perlov. Channel Four, 1981, UK / Israel.

Presentations, Immersive Installations and Creative Activities:

NASA Digital Twins for Cislunar and Lunar Surface Ecosystem Workshops. In collaboration with JPL, Aerospace Corporation, APL, NVIDIA, and NASA Langley.

Moments in Nature (MiN), collaborative storytelling in virtual reality. (2022-present). The interactive installation was presented in several venues including the Pictoplasma conference (New York), University of Tampa, SIGGRAPH ASIA. Credits: Gauthier, JM., Finney, Payton. (Peer Reviewed)

Recent Works in Character Design and Animation, Gauthier, JM., Pictoplasma conference, School of Visual Arts, New York City, 2023 (Peer Reviewed).

Moments in Nature, Gauthier, JM. with Payton Finney and Sydney Tverdy, CAA Research Summit 2023, University of Idaho, 2023

Augmenting Virtual Lunar Terrain with Procedural and Machine Learning Models in Real-time, Gauthier, JM., GIS Day Short Talks 2023, University of Idaho, 2023.
Gauthier, JM., Wróblewski, F. B. 54th Lunar and Planetary Conference 2023, Lunar Surface Science Peer Reviewed Workshop. Poster presentation.

Virtual Production Studio Workshop, Gauthier, JM., Finney, Payton. University of Tampa, department of Film Animation, New Media. Collaboration between Virtual Technology and Design, University of Idaho and Film Animation, New Media, University of Tampa (FL), 2023.

Moments in Nature (MiN), was selected with the 10 best virtual reality projects worldwide and presented at Real Time Live! SIGGRAPH Asia 2022, Collaborative storytelling in virtual reality. (2022). Daegu, South Korea. (2022). Credits: Jean-Marc Gauthier in collaboration with Payton Finney. Narration by Savannah Thomson. Music. Sound design by Alex Ho. Thank you to Emma Ferguson, Clayton Christensen and Randall Erickson.

Virtual Protein Builder, was selected with the 10 best virtual reality projects worldwide at Real Time Live!, SIGGRAPH Asia 2019, Brisbane, Australia(2019). Credits: Jean-Marc Gauthier in collaboration with Ian McGrath. Protein Builder (Best demo Awards). 2019.

Virtual Reality Software and Technology '19 conference Sydney Australia Virtual Protein Builder (Best demo Awards). 2019. Virtual Reality Software and Technology '19 conference Sydney Australia.

Virtual Proteins, Palouse Discovery Science Center, demonstration, 2019.

Virtual Reality Wildlife, interactive installation, 2018 at Adobe Creative Jam, Washington State University, Pullman, WA.

Virtual Reality Wildlife, Interactive installation, 2018, Palouse Family Fair, Pullman, WA.
Virtual Reality Wildlife, Interactive installation, 2017, Pritchard Gallery, University of Idaho, ID.

Secret Garden, interactive installation, 2013, ArtScience Museum, Marina Bay Sands, Singapore.

Crayons 2.0, interactive installation, 2013, Affordable Art Fair, Singapore.

Interactive Animations, exhibition at "Elastic Identity, 2011, " IMC Lab + Gallery, New York.

From Dust to Dust, animation, exhibition by Melvin Moti, 2010, Wiels Contemporary Art Center, Brussels, Belgium.

Virtual City, IMC Exposition, 2009, IMC Studio, New York. Virtual Manhattan, 2008, DaeGu Culture and Art Center, Korea. Nicebots, 2005, Ars Electronica, Linz, Austria.

Homage to Edward Hopper, Nighthawks, 2005, Urban Screens 05, Amsterdam, Holland.

The Lake, interactive installation, 2005, Villa Arson, Nice, France.

Crayons. Homage to Sol Lewitt, 2005, immersive installation, Chelsea Art Museum, New York.

Nighthawks, urban video game installation, 2005, Festival 1ier Contact, Issy, France.
Nighthawks, web installation, FILE 2004, Electronic Language Festival, San Paolo, Brazil.

Nicebots, robotics installation, 2004, MAMAC, Nice, France.

Infinite City, virtual reality installation, J. Tunick, M. Kirov, 2004, Convergence, Chelsea Art Museum, New York.

Aphrodisias, virtual archeology installation, 2003, Institute of Fine Arts/NYU, New York.

Bicycle Rider, interactive installation, 2002, Villette-Numerique, Paris, France.

Swimmer, Web3D Conference - VRML Art 2000, Monterey, CA.

Main Architectural Works:

New Hospital Center De Chagny and renovation of the Quartier de La Boutiere, Chagny, Saone et Loire, France. Jean-Marc Gauthier, architect. 1997.

From Bed to Armchair, new hospital building and renovation of the Laennec Pavillon, Joffre Hospital, Assistance Publique – Hopitaux de Paris. Draveil, France. Jean-Marc Gauthier, architect and E. Colboc, architect. 1988.

Funded Grants:

Space And Time-Dependent Response To Viral Infection In The Lung, Holly Witchman PI, National Institute of Health, Center for Modeling Complex Interactions, Esteban Vargas Co-Lead, Tanya Miura, Co-Lead, Jean-Marc Gauthier, Co-Lead, Yumna Kurdi, Investigator. $600K. Funded.

Micron, VR Nodes. Design production and implementation of a metaverse and virtual framework for the recruitment and training of the workforce for Micron Inc, (46.000 employees) world leader in the-semiconductor industry. Jean- Marc Gauthier (PI). 2024. Budget: $64K. Funded.

Wildfire Virtual Sandbox (WVS), Forest Service training of firefighters in virtual forest environments.

The Wildfire Virtual Sandbox (WVS) is a virtual world created for the training of firefighters using virtual tools in virtual environments. Jean-Marc Gauthier (PI). The Forest Service National Advanced Fire & Resource Institute, US Fire Service. 2024. Budget: $84K. Funded.

Virtual Forest VR project. Design and implementation by Jean-Marc Gauthier (PI) in collaboration with S. Wallace (Office of the President), Heather Heward (CNR), C. Goebel (CNR) (2022 to 2024). Budget: $17K. Funded

VR Classroom online project, version 1.0 (2021- 22) and version 2.0 (2022- 23). Interdisciplinary virtual reality project to be part of a new online curriculum. Design and implementation by JM Gauthier (Lead) in collaboration with Brian Cleveley (VTD), Rayce Bird, (VTD) and Ken Udas, Vice-Provost for Digital Learning Initiatives.
Budget: $67 K. Funded.

Idaho NASA EPSCoR (INE) Two Collaboration Grants (2023). Jean-Marc Gauthier (PI), Frank Wróblewski, (Investigator), University of Idaho. NASA Engineering Virtual Reality, Johnson Space Center, Houston, TX. $6K. Funded

Cross-Cultural Optics (CCO): Connecting Female US Engineers to Workplaces with More Gender Balance via Virtual Reality, Amazon Catalyst Grant (Funded), Kmec J. (PI) Washington State University, Gauthier, JM. (UofI Co-PI), Aziz M., Purdue University, et al, 2020-2021. Funded.

Genome to Phenome: Using Biophysical Protein Models to Map Genetic Variation to Phenotypes, Prof. Marty Ytreberg (PI) et al, JM Gauthier (Investigator) EPSCOR Track-2 NSF. 08/2017 - 2021, $6M. Funded.

Interactive Videos on the Web. T. Wong (PI), JM Gauthier (Co-PI), K. Lim, (Co-PI), Spring Singapore, 2014, $70K. Funded.

Feasibility of Using Virtual Reality to Train Patients with Severely Impaired Vision, Dr. Liu, (PI), JM Gauthier (Investigator), National Institute of Health / University of Alabama, Birmingham, AL, 2010, > $600K. Funded.

Games for Learning Institute, G4LI, Microsoft Research. JM Gauthier (Faculty partner of the proposal funded), 2007, > $1M. Funded.

Dynamic Virtual Patient Simulator, JM Gauthier (PI), M. Nachbar (Co-PI), CDCF, AES School of Medicine, 2004 > $30K. Funded.

Virtual Archeology at Aphrodisias. C. Ratte, (PI), JM Gauthier (Investigator), CDCF, Institute of Fine Arts, New York. > $25K. Funded.

Liquid Map, JM Gauthier (PI), M. Pillet, (Co-PI), Aménagement du Territoire et de l'Action Regionale (DATAR), 1996, $80K. Funded.

Delano-Aldrich Fellowship Laureat, (Architecture), American Institute of Architects, Washington, DC

Villa Medicis Hors-les-Murs Laureat, (Architecture) Ministere des Affaires Etrangeres, France

SEPIA, Award for innovation in hospitable design for senior communities, Ministere de la Santé, France

End of Life Places, Award for innovation in hospitable design, Assistance Publique - Hopitaux de Paris,

Non funded grants:

Center for Aquatic Research and Training (CART) and human-natural systems digital twin - NSF Science and Technology Center Competition. Co-PI with Tonina, Daniele - University of Idaho, Center for Ecohydraulics Research and others. $6 M/year for 5 years. Pending proposal, 2024-25.
River Digital Twins for Environmental Management, Jean-Marc Gauthier (PI), Associate Professor, Virtual Technology & Design, CAA, University of Idaho, Christopher Caudill, MSc., Ph.D., Professor of Fisheries, Department of Fish and Wildlife Sciences, University of Idaho, Daniele Tonina, Ph.D., P.E., Professor, Center for Ecohydraulics Research, University of Idaho. 750K. Pending proposal, 2024-25.

SIMLung, National Institutes of Health grant proposal, Holly Witchman PI, Center for Modeling Complex Interactions, Esteban Vargas Co-Lead, Tanya Miura, Co-Lead, Jean-Marc Gauthier, Co-Lead, Yumna Kurdi, Investigator, and University of New Mexico, Health Sciences Center. Not funded. Grant resubmitted in 2024.

Real-Time 3D Augmentation of Artemis III Candidate Landing Sites with Machine Learning and Procedural Models. National NASA EPSCoR Pre-proposal. Jean-Marc Gauthier (PI), Frank Wróblewski, (Investigator), Department of Earth and Spatial Sciences, University of Idaho, NASA Contact/Researcher: Eddie Paddock, Virtual Reality Technical Discipline Lead, NASA Engineering Directorate as the Johnson Space Center, Houston (TX). Not funded. Grant resubmitted in 2024.

Identifying Protein Binding Pockets by Combining Voxels and Deep Learning. An interdisciplinary grant proposal by Jean-Marc Gauthier, PI, Brenda Rubenstein, Joukowsky Family Assistant Professor of Chemistry (Brown University), Frank Gao, Professor of Mathematics. 2022. Not Funded. Develop a Multi-Scale Multi- Dimensional Framework to Visualize, Simulate, Identify and Mitigate Threats to Natural Resources from Rapid Population Growth in Idaho. Idaho EPSCoR RII Track-1 grant proposal including universities across Idaho. Project in collaboration with Lan Li, Ph.D, Associate Professor, Boise State University. 2022. Not Funded.

A Cross-Cultural Study Informing Women's Engineering Participation in US (CcWEP-US), NSF grant proposal Kmec J. (PI) Washington State University, Gauthier, JM. (Co-PI), et al. 2020-2021. Not funded

Robotics Systems in Virtual Reality, NASA Artemis Grant. Bernards, M. (PI), Gauthier, JM. (Co-i), Baker, L. (Co- I), Rader, E. Department of Geological Sciences et al.2020. Not funded. Lunar Dust and Operations Simulation (LDOS) Gauthier, JM. (PI), Baker, L. (Co-PI), Rader, E. Department of Geological Sciences et al.2020. Not funded.

Double Crossed, "Call for projects" funding competition proposal, category virtual reality project, 2019. Annecy International Animation Festival, Annecy, France. PI Jean-Marc Gauthier (VTD), Rayce Bird (VTD), Matthew Sutton, (WSU).

Service and Major Committee Assignments:

2025. Academic & Learning Technology Advisory Board
2024 -present. AI Working Group
2023 - 2024. Faculty Senate Chair
2021- 2024. Faculty Senator
2023- present. Artificial Intelligence and Machine Learning Task Force Chair

2023. SLATE Strategy Director Search Committee
2023. Chair VTD-IMCI search committee
Fall 2023 University Curriculum Committee
2018-2021 University Promotion and Tenure Committee
2021 – 2023 University Advising Committee
2022 – 2023 CAA Curriculum Committee
2017 - 2023 CAA Dean Search Committee
2019 - 2020 CAA Recruitment committee
2017 – 2019 EPSCoR Track-2 All-Hands Working Group, 2017 - 2019
2017. NASA Idaho Space Grant Consortium Review Committee

Professional and Scholarship Organizations:

PLOS ONE reviewer (2022- present)
Frontiers in Computer Science reviewer (2024)
Consumer Electronic Show CES 2019, Las Vegas, NV. Conference attendee with VTD Senior students
Consumer Electronic Show CES 2018, Las Vegas, NV. Conference attendee with VTD Senior students Le Cinq, Montreal, Canada. Review committee, 2011-12
Government of Quebec, Canada. Fonds Québécois de la Recherche sur la Societe et la Culture. Review committee, 2009-10
Focal Press, Taylor & Francis, reviewer, Waltham, MA, 2009 -
Designing Interactive Systems 2006, ACM, Design Events Chair / reviewer. Penn State University, University Park, PE, 2006

Outreach:

AI + ML Exhibition 14 Artificial Intelligence and Machine Learning projects from University of Idaho faculty and students, 2024, Reflections Gallery, University of Idaho,

Schweitzer Engineering Laboratories (SEL), VTD VR Lab, and VTD graduate students. STEAM Nights programs in the Pullman School District. More than 800 middle school students interacted with the demos.

Rural and Adult Serving Project, University of Idaho

VR Classroom, video segment produced for the presentation at Idaho State Board Of Education, University of Idaho, 2023

The Virtual Forest project A.S. Degree in Wildland Fuel and Fire Technology/Virtual Forest presentation, at the Valley Summit, University of Idaho, McCall. 2023

The Virtual Forest for Experiential Learning, Gauthier, JM., VR Classroom project, GIS Day Short Talks 2023, University of Idaho, 2023

Extension Foundation Impact Collaborative Summit, 2023

Mentor for Lakeside High School student, (11th grade), Plummer, ID. Storyboarding and production of a 3D animation (2018- 2019)
Mentor for Clearwater Valley High school student (12th grade), Kooskia ID. Storyboarding and production of a 3D animation (2018- 2019)

Mentor for Moscow High School student (12th grade), Moscow ID. Developing the code for a video game on the i- Phone platform. (2017)
Idaho Virtual Reality Council, blog contributor, 2018

Adobe Creative Jam, 2018. Presentation of virtual reality works, Washington State University, Pullman, WA