

# NATANIEL RUIZ

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## POSITIONS AND EDUCATION

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<b>Research Scientist, Google Research</b> , Cambridge, MA			2023-Present
<ul style="list-style-type: none"><li>• Authored DreamBooth: Fine Tuning Text-to-Image Diffusion Models for Subject-Driven Generation</li><li>• DreamBooth wins a best paper award at CVPR 2023 (0.25% award rate)</li><li>• Defined new problems and research directions with HyperDreamBooth, RealFill, StyleDrop, ZipLoRA, DreamBooth3D and SuTI</li></ul>			
<b>Ph.D. Candidate, Boston University</b> , Boston, MA	GPA :	3.98 / 4.0	2018 - 2023
Ph.D. Candidate in Computer Science Advisor: Prof. Stan Sclaroff Research Group: Image and Video Computing			
<b>M.Sc., Georgia Institute of Technology</b> , Atlanta, GA	GPA :	3.90 / 4.0	2016 - 2017
M.Sc. in Computer Science Advisor: Prof. James M. Rehg Research Group: Behavioral Imaging			
<b>B.Sc. / M.Sc., Ecole Polytechnique</b> , Paris, France	Graduate GPA :	3.86 / 4.0	2013 - 2016
<i>N°1 Ranked French Grande Ecole in Science and Technology</i> Bachelor of Science & Master of Science in Data Science			
<b>Lycée Jean-Baptiste Say</b> , Paris, France	GPA :	3.80 / 4.0	2011 – 2013
<i>N°1 Ranked Program in Physics, Technology and Industrial Science.</i> 2-year intensive preparation in Mathematics and Physics for the nationwide Grande Ecole entrance examinations. Admitted to Ecole Polytechnique (0.6% acceptance rate).			

## AWARDS

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**CVPR Best Paper Award** (2023, 0.25% award rate, one of 6 out of 2000+), CVPR 2023

**Best Poster Award** (2021, 4% award rate), IEEE International Conference on Automatic Face and Gesture Recognition 2021 (FG)

**[Twitch Research Fellowship Finalist](#)** (2020), Twitch

**Outstanding Contributions Award**, Google 2023

**Perception + Friends Hackathon Award**, Google 2023

**Second Round for the [Open Phil AI Fellowship](#)** (2020), Open Philanthropy

**DeepMind Travel Award** (2020), Conference on Computer Vision and Pattern Recognition (CVPR)

**Travel Award** (2019), International Conference on Learning Representations (ICLR)

**Distinguished Presenter and Brilliant Award** (2019), 4th Annual Boston University Data Science Day

**Dean's Fellowship** (2018-2019), Boston University

**Outstanding Leadership Award** (2016, 2% award rate), Ecole Polytechnique

**Excellence-Major Valedictorian Scholarship** (2011-2016), French Government

## PUBLICATIONS

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[Paper, Arxiv 2024]

Nataniel Ruiz, Yuanzhen Li, Neal Wadhwa, Yael Pritch, Michael Rubinstein, David E. Jacobs, and Shlomi Fruchter. "Magic Insert: Style-Aware Drag-and-Drop." *arXiv preprint arXiv:2407.02489* (2024).

[Paper, Arxiv 2024]

Litu Rout, Yujia Chen, Nataniel Ruiz, Abhishek Kumar, Constantine Caramanis, Sanjay Shakkottai, and Wen-Sheng Chu. "RB-Modulation: Training-Free Personalization of Diffusion Models using Stochastic Optimal Control." *arXiv preprint arXiv:2405.17401* (2024)

**[Paper, ECCV 2024]**

Viraj Shah, **Nataniel Ruiz**, Forrester Cole, Erika Lu, Svetlana Lazebnik, Yuanzhen Li, and Varun Jampani. "ZipLoRA: Any Subject in Any Style by Effectively Merging LoRAs." *arXiv preprint arXiv:2311.13600* (2023)

**[Paper, SIGGRAPH 2023]**

Luming Tang, **Nataniel Ruiz**, Qinghao Chu, Yuanzhen Li, Aleksander Holynski, David E. Jacobs, Bharath Hariharan, Yael Pritch, Neal Wadhwa, Kfir Aberman, Michael Rubinstein. "RealFill: Reference-Driven Generation for Authentic Image Completion." *SIGGRAPH* (2024)

**[Paper, CVPR 2023]**

**Nataniel Ruiz**, Yuanzhen Li, Varun Jampani, Wei Wei, Tingbo Hou, Yael Pritch, Neal Wadhwa, Michael Rubinstein, and Kfir Aberman. "HyperDreamBooth: Hypernetworks for Fast Personalization of Text-to-Image Models." *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2024)

**[Paper, NeurIPS Workshop 2023]**

Ariel N. Lee, Cole J. Hunter, **Nataniel Ruiz**. "Platypus: Quick, Cheap and Powerful Refinement of LLMs" *Neural Information Processing Systems Workshop (NeurIPS Workshop)* (2023)

**[Paper, Arxiv 2023]**

Ariel N. Lee, Sarah Adel Bargal, Janavi Kasera, Stan Sclaroff, Kate Saenko, **Nataniel Ruiz**. "Hardwiring ViT Patch Selectivity into CNNs using Patch Mixing" *arXiv preprint arXiv:2306.17848* (2023)

**[Paper, NeurIPS 2023]**

Kihyuk Sohn, **Nataniel Ruiz**, Kimin Lee, Daniel Castro Chin, Irina Blok, Huiwen Chang, Jarred Barber, Lu Jiang, Glenn Entis, Yuanzhen Li, Yuan Hao, Irfan Essa, Michael Rubinstein, Dilip Krishnan. "StyleDrop: Text-to-Image Generation in Any Style" *Neural Information Processing Systems (NeurIPS)* (2023)

**[Paper, NeurIPS 2023]**

Wenhu Chen, Hexiang Hu, Yandong Li, **Nataniel Ruiz**, Xuhui Jia, Ming-Wei Chang, William W. Cohen. "Subject-driven Text-to-Image Generation via Apprenticeship Learning" *Neural Information Processing Systems (NeurIPS)* (2023)

**[Paper, ICCV 2023]**

Amit Raj, Srinivas Kaza, Ben Poole, Michael Niemeyer, **Nataniel Ruiz**, Ben Mildenhall, Shiran Zada, Kfir Aberman, Michael Rubinstein, Jonathan Barron, Yuanzhen Li, Varun Jampani. "DreamBooth3D: Subject-Driven Text-to-3D Generation" *International Conference on Computer Vision (ICCV)* (2023)

**[Paper, CVPR 2023]**

**Nataniel Ruiz**, Yuanzhen Li, Varun Jampani, Yael Pritch, Michael Rubinstein, Kfir Aberman. "DreamBooth: Fine Tuning Text-to-Image Diffusion Models for Subject-Driven Generation" *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2023)  
**(CVPR Best Student Paper Honorable Mention, 0.25% award rate - Top 100 Cited AI Papers in 2022)**

**[Paper, AAAI 2023]**

**Nataniel Ruiz**, Sarah Adel Bargal, Cihang Xie, Stan Sclaroff. "Practical Disruption of Image Translation Deepfake Networks" *AAAI Conference on Artificial Intelligence (AAAI)* (2023)

**[Paper, NeurIPS 2022]**

**Nataniel Ruiz**, Cihang Xie, Sarah Adel Bargal, Kate Saenko, Stan Sclaroff. "Finding Differences Between Transformers and ConvNets Using Counterfactual Simulation Testing" *Neural Information Processing Systems (NeurIPS)* (2022)

**[Paper, 3DV 2022]**

**Nataniel Ruiz**, Miriam Bellver, Timo Bolkart, Ambuj Arora, Ming C. Lin, Javier Romero, Raja Bala. "Human Body Measurement Estimation with Adversarial Augmentation" *International Conference on 3D Vision (3DV)* (2022)

**[Paper, CVPR 2022]**

**Nataniel Ruiz**, Adam Kortylewski, Weichao Qiu, Cihang Xie, Sarah Adel Bargal, Alan Yuille\*, Stan Sclaroff\*. "Simulated Adversarial Testing of Face Recognition Models" *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2022)

**[Paper, ICML Workshop 2021]**

Benjamin Spetter-Goldstein, **Nataniel Ruiz**, Sarah Adel Bargal. "Examining the Human Perceptibility of Black-Box Adversarial Attacks on Face Recognition" *ICML Adversarial Machine Learning Workshop* (2021)

**[Paper, BMVC 2021]**

**Nataniel Ruiz**, Barry-John Theobald, Anurag Ranjan, Ahmed Hussein Abdelaziz, Nicholas Apostoloff. "MorphGAN: One-Shot Face Synthesis GAN for Detecting Recognition Bias" *British Machine Vision Conference (BMVC)* (2021)

**[Paper, ICLR Workshop 2021]**

**Nataniel Ruiz**, Sarah Adel Bargal, Stan Sclaroff. "Protecting Against Image Translation Deepfakes by Leaking Universal Perturbations from Black-Box Neural Networks" *ICLR Security and Safety in Machine Learning Systems Workshop* (2021)

**[Paper, FG 2021]**

**Nataniel Ruiz**, Hao Yu, Danielle Allessio, Mona Jalal, Ajjen Joshi, Thomas Murray, John Magee, Jacob Whitehill, Vitaly Ablavsky, Ivon Arroyo, Beverly Woolf, Stan Sclaroff, and Margrit Betke. "Leveraging Affect Transfer Learning for Behavior Prediction in an Intelligent Tutoring System" *IEEE International Conference on Automatic Face and Gesture Recognition 2021 (FG)* (2021)

**(Selected for Oral and Best Poster Award - 4% award rate)**

**[Paper, ECCV Workshop 2020]**

**Nataniel Ruiz**, Sarah Adel Bargal, Stan Sclaroff. "Disrupting DeepFakes: Adversarial Attacks Against Conditional Image Translation Networks and Facial Manipulation Systems" *CVPR 2020 Workshop on Adversarial Machine Learning in Computer Vision* (2020) **(Oral)** and published at *European Conference on Computer Vision (ECCV) Workshop* (2020)

**[Paper, CVPR 2020]**

Eunji Chong, Yongxin Wang, **Nataniel Ruiz**, James M. Rehg. "Detecting Attended Visual Targets in Video" *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)* (2020)

**[Paper, ICLR 2019]**

**Nataniel Ruiz**, Samuel Schulter, Manmohan Chandraker. "Learning To Simulate" *International Conference on Learning Representations (ICLR)* (2019)

**[Paper, ECCV 2018]**

Eunji Chong, **Nataniel Ruiz**, Yongxin Wang, Yun Zhang, Agata Rozga, James M. Rehg. "Connecting Gaze, Scene, and Attention: Generalized Attention Estimation via Joint Modeling of Gaze and Scene Saliency." *The European Conference on Computer Vision (ECCV)*, (2018), pp. 383-398

**[Paper, Arxiv 2018]**

Meera Hahn, **Nataniel Ruiz**, Jean-Baptiste Alayrac, Ivan Laptev, James M Rehg. "Learning to Localize and Align Fine-Grained Actions to Sparse Instructions." *arXiv preprint arXiv:1809.08381* (2018)

**[Paper, CVPRW 2018]**

**Nataniel Ruiz**, Eunji Chong, and James M. Rehg. "Fine-Grained Head Pose Estimation Without Keypoints." In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops*, pp. 2074-2083. (2018) **(Oral)**

**[Paper, UBICOMP 2017, IMWUT 2017]**

Eunji Chong, Katha Chanda, Zhefan Ye, Audrey Southerland, **Nataniel Ruiz**, Rebecca M. Jones, Agata Rozga, and James M. Rehg. "Detecting Gaze Towards Eyes in Natural Social Interactions and Its Use in Child Assessment." *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies* 1, no. 3 (2017): 43

**(Selected for Oral and Distinguished Paper Award - 3% award rate)**

**[Paper, Arxiv 2017]**

**Nataniel Ruiz**, and James M. Rehg. "Dockerface: an Easy to Install and use Faster R-CNN Face Detector in a Docker Container." *arXiv preprint arXiv:1708.04370* (2017)

## PATENTS

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Theobald, Barry-John, Nataniel Ruiz Gutierrez, and Nicholas E. Apostoloff. "Face image generation with pose and expression control." U.S. Patent No. 11,475,608. 18 Oct. 2022.

Schulter, Samuel, Nataniel Ruiz, and Manmohan Chandraker. "Learning to simulate." U.S. Patent No. 11,518,382. 6 Dec. 2022.

## PRESENTATIONS

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### *Invited Talks*

Sep	2024	MIT, seminar
Sep	2024	Brown University, seminar
Sep	2024	CalTech, seminar
Sep	2024	UC Berkeley, seminar
Sep	2024	UT Austin, seminar
Sep	2024	Harvard, seminar
Sep	2024	Carnegie Mellon University, seminar
Jul	2024	Northeastern University, seminar
Mar	2024	University of Memphis, seminar
Sep	2023	TWIML AI Podcast, interview
Jun	2023	REF Group, Bolivia, guest talk
May	2023	Microsoft, research presentation
Mar	2023	University of Bristol, research presentation
Mar	2023	Hugging Face, research presentation
Dec	2022	TikTok, research presentation
Dec	2022	Adobe Research, research presentation
Dec	2022	Stanford, research presentation
Aug	2022	Google Perception, research presentation
Jul	2022	Google Creative Camera Seminar, research presentation
Jul	2022	Google Media Integrity, research presentation
Jun	2022	Google Perception, research presentation
Apr	2022	Boston University, Department of Computer Science, AI Research Lab, seminar
Feb	2022	Johns Hopkins University, Department of Computer Science (Prof. Alan Yuille lab), seminar
Aug	2021	Amazon Softlines Research Presentation, research presentation
Jun	2021	Max Planck Institute for Intelligent Systems, Perceiving Systems (Prof. Michael Black lab), seminar
Sep	2020	Johns Hopkins University, Department of Computer Science (Prof. Alan Yuille lab), seminar
Sep	2020	University of Massachusetts at Amherst, College of Computer Science (Prof. Beverly Woolf class), guest lecture
Aug	2020	Apple Inc., Senior Director of AI and Machine Learning (Prof. Carlos Guestrin), research presentation
May	2020	TWIML AI Podcast, interview
Mar	2020	Boston University, Department of Computer Science, AI Research Lab, seminar
Feb	2020	Massachusetts Institute of Technology, CSAIL, Vision and Graphics Group (Prof. Antonio Torralba lab), seminar
Nov	2019	Georgia Institute of Technology, School of Interactive Computing (Prof. James M. Rehg lab), seminar
Oct	2019	University of Massachusetts at Amherst, College of Computer Science (Prof. Beverly Woolf class), guest lecture
Sep	2019	Apple Inc., Machine Learning Vice President (Dr. John Giannandrea), research presentation
Aug	2019	Apple Inc., Siri, research presentation

Aug 2019 Apple Inc., AI Research, research presentation

Feb 2019 Boston University, Department of Computer Science, AI Research Lab, seminar

Feb 2019 Boston University Data Science Day, distinguished presenter

Jan 2019 Boston University, AI Research Lab Retreat, invited presentation

Jan 2019 KPMG, Bolivia, machine learning seminar

Aug 2018 NEC Laboratories America Inc., research presentation

### ***Contributed Talks***

Jun 2024 CVPR Google Booth, oral presentation

Jun 2023 CVPR Award Nominee Oral (12 out of 2000+ accepted papers), oral presentation

Dec 2021 IEEE International Conference on Automatic Face and Gesture Recognition (FG), oral presentation

May 2021 ICLR, Security and Safety in Machine Learning Systems Workshop, oral presentation

Aug 2020 ECCV, Advances in Image Manipulation Workshop, oral presentation

Jun 2020 CVPR, Workshop on Adversarial Machine Learning in Computer Vision, oral presentation

Dec 2019 New England Computer Vision Workshop (NECV), Brown University, oral presentation

Sep 2019 Machine Intelligence Conference (MIC), Boston University, oral presentation

Jun 2018 CVPR, Automatic Face and Gesture Recognition Workshop, oral presentation

### ***Posters***

Aug 2024 SIGGRAPH 2024

Jun 2024 IEEE Computer Vision and Pattern Recognition Conference (CVPR)

Dec 2023 Neural Information Processing Systems (NeurIPS)

Jun 2023 IEEE Computer Vision and Pattern Recognition Conference (CVPR)

Feb 2023 AAAI Conference on Artificial Intelligence (AAAI)

Nov 2022 Neural Information Processing Systems (NeurIPS)

Sep 2022 International Conference on 3D Vision (3DV)

Jun 2022 IEEE Computer Vision and Pattern Recognition Conference (CVPR)

Dec 2021 IEEE International Conference on Automatic Face and Gesture Recognition (FG)

Nov 2021 British Machine Vision Conference (BMVC)

May 2021 ICLR, Security and Safety in Machine Learning Systems Workshop

Aug 2020 ECCV, Advances in Image Manipulation Workshop

Jun 2020 CVPR, Workshop on Adversarial Machine Learning in Computer Vision

Dec 2019 New England Computer Vision Workshop (NECV), Brown University

May 2019 International Conference on Learning Representations (ICLR)

Feb 2019 Boston University Data Science Day

Jun 2018 CVPR, Automatic Face and Gesture Recognition Workshop

## **RESEARCH EXPERIENCE**

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**Google Research**, Cambridge, MA

Jun 2022 - Aug 2022

*Student Researcher*

- DreamBooth wins the Student Honorable Mention Award at CVPR 2023 (0.25% award rate)
- Co-author on the Subject-driven Text-to-Image Generation via Apprenticeship Learning (SuTI) paper
- Co-author on DreamBooth3D
- Co-author on StyleDrop

- Google Research**, Mountain View, CA Jun 2022 - Aug 2022  
*Research Intern*
- Working with **Kfir Aberman**, **Yael Pritch**, **Varun Jampani**, **Yuanzhen Li** and **Miki Rubinstein** on subject-driven generation using text-to-image diffusion models. Released DreamBooth.
- Amazon**, New York City, NY Jun 2021 - Oct 2021  
*Research Intern*
- Working with **Dr. Javier Romero**, **Prof. Ming C. Lin**, **Dr. Timo Bolkart** and **Dr. Raja Bala** on computer vision, simulation and machine learning. 3DV publication.
- Apple AI Research**, Cupertino, CA Jun 2020 - Aug 2020  
*Research Intern*
- Worked with **Dr. Nick Apostoloff** and **Dr. Barry Theobald** on a one-shot face synthesis GAN for detecting recognition bias. BMVC publication.
- Apple AI Research**, Cupertino, CA May 2019 - Aug 2019  
*Research Intern*
- Worked with **Dr. Nick Apostoloff** and **Dr. Barry Theobald** on a one-shot face synthesis GAN for detecting recognition bias.
- Boston University**, Boston, MA Sep 2018 - Present  
*Research Fellow*
- Working with **Prof. Stan Sclaroff**, **Prof. Margrit Betke**, **Dr. Sarah Adel Bargal** on topics related to facial analysis, image translation, adversarial attacks, simulation and behavior understanding.
- NEC Laboratories America, Inc**, Cupertino, CA Feb 2018 - Aug 2018  
*Research Intern*
- Worked with **Prof. Manmohan Chandraker** and **Dr. Samuel Schulter** on topics related to self-driving car perception, visual data simulation and reinforcement learning. One ICLR publication on the topic of learning to simulate.
- Georgia Institute of Technology**, Atlanta, GA Dec 2016 – Dec 2017  
*Graduate Research Assistant*
- Worked with **Prof. James Rehg** on facial analysis, behavior understanding, first person vision and mobile computer vision.
  - Co-authored four papers, one tech-report and released three open-source computer vision applications in 2017 while taking a full-time course load.
- Massachusetts Institute of Technology**, Cambridge, MA May 2016 – Aug 2016  
*Visiting Research Assistant (funding: Bill and Melinda Gates Foundation Grant)*
- Worked with **Dr. Lalana Kagal** and **Dr. Kalyan Veeramachaneni** building a deep learning application on Android for visual detection of diseases in cassava plant leaves. Deployed the application on the field in Kampala, Uganda.

## REVIEWER

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SIGGRAPH 2023, 2024

European Conference on Computer Vision (ECCV) 2024

Conference on Computer Vision and Pattern Recognition (CVPR) 2022, 2021, 2018

International Conference on Computer Vision (ICCV) 2023, 2021, 2019

International Conference on Learning Representations (ICLR) 2020

Conference on Neural Information Processing Systems (NeurIPS) 2020, 2023

International Conference on Machine Learning (ICML) 2021

AAAI Conference on Artificial Intelligence (AAAI) 2022

Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 2020, 2019

Winter Conference on Applications of Computer Vision (WACV) 2022, 2021, 2020

Asian Conference on Computer Vision (ACCV) 2020

CVPR AI for Content Creation Workshop 2021

ICLR Workshop on Socially Responsible Machine Learning 2022, 2021

ICLR Workshop on Security and Safety in Machine Learning Systems 2021

ECCV Adversarial Robustness in the Real World Workshop 2022, 2020

ECCV Advances in Image Manipulation Workshop 2020

ECCV Out-of-Distribution Generalization in Computer Vision Workshop 2022

ICLR Workshop on Socially Responsible Machine Learning 2022

Pattern Recognition 2020

Transactions on Neural Networks and Learning Systems (TNNLS) 2020, 2019, 2018

Transactions on Cybernetics 2018

## SELECTED PROJECTS

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**2,000+ stars** on original machine learning GitHub repositories at [github.com/natanielruiz](https://github.com/natanielruiz)

[Disrupting Deepfakes: Adversarial Attacks on Conditional Image Translation Networks](#)

- Adversarial attacks on image translation systems to prevent modification of a person's images

[Deep Learning Head Pose Estimation](#)

- Head pose estimation deep neural network bundled with pre-trained models.

[Android-YOLO](#)

- Open source real-time object detection deep learning system on an Android device.

[Dockerface](#)

- Open source deep learning face detection in a Docker container.

[EGTEA Gaze+ Dataset](#)

- Co-lead the annotation of a large open-access egocentric vision action recognition dataset.

Udacity Lecture

- Authored an online lecture for Prof. James M. Rehg on Facial Landmark Detection intended to be released by Georgia Tech on the Udacity platform.

## PRESS

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[DreamBooth in Wikipedia](#)

[Learning to Simulate in Medium](#)

- 18,000+ visits
- Front page on Y Combinator's [Hacker News](#)
- Front page on [Towards Data Science](#)

[Disrupting Deepfakes](#)

- [TWIML AI Podcast](#) interview
- Mentioned on [Forbes](#)
- Front page on Boston University's [The Brink](#)
- Front page on Y Combinator's [Hacker News](#)
- Front page on Reddit /r/machinelearning subreddit

## LEADERSHIP & AFFILIATIONS

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**Adversarial Robustness in the Real World, ECCV 2022 Workshop**

2022

*Organizer*

- Part of the organizing committee and program committee.

**Adversarial Robustness in the Real World, ICCV 2021 Workshop**

2021

*Organizer*

- Part of the organizing committee and program committee.
- Panel discussion host and moderator

[TEDxEcolePolytechnique](#), Ecole Polytechnique

2014 – 2016

### *President and founder*

- Founded and organized the first TEDx conference at Ecole Polytechnique.
- Recruited and managed the 2015 and 2016 student teams.

### **Entrepreneurship Student Society**, Ecole Polytechnique

2014 – 2016

### *Speaker & Startup Relations Manager*

- Organized the first Startup Showcase and job fair at Polytechnique.
- Obtained the participation of over ten startups for the Startup Showcase.
- Obtained the participation of entrepreneur coaches and a panel of senior entrepreneur judges for the Startup Weekend event.

## **SELECTED GRADUATE COURSEWORK**

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### **Boston University**

Deep Learning (CS 591), Advanced Optimization Algorithms (CS 531)

### **Georgia Institute of Technology**

Machine Learning (CS 7641), Computer Vision (CS 6476), Advanced Computer Vision (CS 7476), Natural Language (CS 7650), Data and Visual Analytics (CS 6476), Knowledge Based AI (CS 7637)

### **Ecole Polytechnique**

Statistical Learning and Non-Parametric Estimation (MAP 553), Machine Learning (INF 582), Operations Research (MAP 557)

## **RESEARCH MENTORSHIP**

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William Zhu (Google research project)

Jialu Li (Google Internship)

David Junhao Zhang (Google Internship)

Litu Rout (Google Internship) - RB-Modulation paper, NeurIPS submission

Viraj Shah (Google Internship) - ZipLoRA paper, ECCV paper

Luming Tang (Google Internship) - RealFill paper, SIGGRAPH paper

Ariel Lee (M.Sc. in C.S., 2023, Boston University) - work on simulation and language models, NeurIPS workshop paper

Rupayan Mallick (PhD in C.S., 2025, Université de Bordeaux) - work on occlusion robustness of neural networks

Benjamin Spetter-Goldstein (B.S. in C.S., 2021, Boston University) - work on adversarial attacks perceptibility, ICML Workshop paper

Yongxin Wang (B.S. in C.S., 2017, Georgia Tech) - work on gaze and attention estimation, ECCV paper

Vaishali Sarathy (M.Sc. in C.S., 2017, Georgia Tech) - work on face analysis

## **SKILLS AND LANGUAGES**

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Python, C++, Java, Matlab, OCaml – PyTorch, pytorch3d, JAX, TensorFlow, scikit-learn, Unreal Engine – GNU/Linux, bash

Fluent in English, French and Spanish.

## **LINKS AND REFERENCES**

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All papers, pre-prints and code can be found at [natanielruiz.github.io](https://natanielruiz.github.io)