# Alex Jordan

#### EXPERIENCE

#### PhD Research Assistant

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SEP 2021 - PRESENT Cambridge, MA, USA

- Develop novel deep learning architectures for computer vision applications in autonomous systems
- Published 6 first-author papers in top-tier conferences (CVPR, ICCV, NeurIPS)
- Collaborated with industry partners including Tesla and Waymo on real-world deployment
- Mentored 4 undergraduate researchers and 2 Master's students on computer vision projects

### **Research Intern**

Jun 2023 – Sep 2023

GOOGLE RESEARCH

Mountain View, CA, USA

- Worked on large-scale vision transformer architectures for image understanding
- Developed efficient training techniques reducing compute requirements by 30%
- Contributed to open-source codebase with over 1000 GitHub stars

### **Machine Learning Engineer**

Jan 2020 – Aug 2021

VisionTech AI

San Francisco, CA, USA

- Built production ML pipelines processing 10M+ images daily
- Led team of 3 engineers developing real-time object detection systems
- Improved model accuracy by 15% while reducing latency by 40%

### EDUCATION

## **Ph.D.** in artificial intelligence

Sep 2021 - Present

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, MA, USA

• Research focus: reinforcement learning, multi-agent systems, and robotics

**M.Sc.** in computer science STANFORD UNIVERSITY

University of Oxford

SEP 2018 - Jun 2020 Stanford, CA, USA

• Graduated with distinction, GPA 4.0/4.0; top 2% of class

B.Sc. in computer science and engineering

Ост 2015 – Jun 2018

Oxford, UK

• Final grade: First-Class Honours

### **PUBLICATIONS**

**A. Jordan**, M. Rodriguez, D. Kim, S. Chen (2024). "Efficient Vision Transformers for Real-Time Object Detection". *Conference on Computer Vision and Pattern Recognition (CVPR)*. *⊗* 

|                          | Networks: A Geometric Perspective". <i>International Conference on Computer Vision (ICCV)</i> . Ø   |      |  |  |
|--------------------------|---|------|--|--|
|                          | <b>A. Jordan</b> , R. Wilson, L. Thompson (2023). "Self-Supervised Learning for Visual Representation in Autonomous Systems". <i>Neural Information Processing Systems</i> ( <i>NeurIPS</i> ). <i>⊘</i> |      |  |  |
|                          | E. Davis, <b>A. Jordan</b> , J. Brown, A. Garcia (2023). "Federated Learning Approach for Privacy-Preserving Computer Vision". <i>International Conference on Machine Learning (ICML)</i> .             |      |  |  |
|                          | <b>A. Jordan</b> , K. Lee (2022). "Automated Neural Architecture Search for Edge Computing Devices". <i>IEEE Conference on Computer Vision and Pattern Recognition (CVPR)</i> . <i>⊗</i>                |      |  |  |
|                          | <b>A. Jordan</b> , P. Martinez, S. Johnson (2022). "Multimodal Fusion Techniques for Robust Scene Understanding". <i>European Conference on Computer Vision (ECCV ⊗</i>                                 |      |  |  |
|                          | <b>A. Jordan</b> , R. Green (2021). "Novel Attention Mechanisms for Scalable Image Processing". <i>International Conference on Learning Representations (ICLR).</i> ⊘                                   |      |  |  |
| Supervision              | Emma Chen (Master thesis), Adversarial Training Techniques for Robust Image Classification  | 2024 |  |  |
|                          | David Park (Master thesis), Efficient Neural Architecture Search for Mobile Computer Vision   | 2024 |  |  |
|                          | Sophie Williams (Undergraduate research), Self-Supervised Learning for Visual Representation  | 2023 |  |  |
|                          | James Liu (Master thesis), Federated Learning in Computer Vision Applications   | 2023 |  |  |
|                          | Maria Garcia (Undergraduate research), Attention Mechanisms in Vision Transformers  | 2023 |  |  |
|                          | Kevin Thompson (Research assistant), Multi-modal Fusion for Autonomous Driving  | 2022 |  |  |
| Teaching                 | MIT (CS229): Machine Learning – Teaching Assistant Fall 2023, Spring 2  | 2024 |  |  |
|                          | MIT (6.869): Advanced Computer Vision Seminar – Fall 2022, Fall 2 Teaching Assistant  | 2023 |  |  |
|                          | MIT (6.S191): Deep Learning Systems Laboratory – Lab  Spring 2022, Spring 2 Instructor  | 2023 |  |  |
|                          | MIT (6.UAR): Undergraduate Research Mentorship Program – 2022-2<br>Mentor   | 2024 |  |  |
| Awards &<br>Scholarships | Outstanding Graduate Student Award, MIT Department of Electrical Engineering and Computer Science – Recognizing exceptional research contributions in computer vision and machine learning              | 2024 |  |  |

**A. Jordan**, J. Liu, M. Zhang (2024). "Adversarial Robustness in Deep Neural

|             | Best Paper Award, Conference on Computer Vision and Pattern<br>Recognition (CVPR) – For 'Efficient Vision Transformers for Rea<br>Object Detection'             |                                      | 2024         |  |
|-------------|---|--------------------------------------|--------------|--|
|             | <i>Google PhD Fellowship</i> , Google Research – Full funding for PhD in machine learning and computer vision   | research 2                           | 2022         |  |
|             | NSF Graduate Research Fellowship, National Science Foundation<br>Three-year fellowship supporting graduate study in computer s                                  |                                      | 2021         |  |
|             | Phi Beta Kappa, University of California, Berkeley – Honor socierecognizing academic excellence   | ety 2                                | 2018         |  |
| Reviewer    | Conference on Computer Vision and Pattern Recognition (CVPI   | R) 2                                 | 2024         |  |
|             | International Conference on Computer Vision (ICCV)  | 2                                    | 2023         |  |
|             | Neural Information Processing Systems (NeurIPS)   | 2                                    | 2023         |  |
|             | International Conference on Machine Learning (ICML)   | 2                                    | 2022         |  |
|             | IEEE Transactions on Pattern Analysis and Machine Intelligence  | e 2                                  | 2024         |  |
| Memberships | Student Representative MIT GRADUATE STUDENT COUNCIL   | SEP 2022 – SEP 2<br>Cambridge, MA, U |              |  |
|             | <ul> <li>Represented PhD students in department-wide policy decision</li> <li>Organized monthly seminars and networking events for 200+<br/>students</li> </ul> |                                      |              |  |
|             | Volunteer Mentor GIRLS WHO CODE   | Jan 2020 – Pres<br>Ren               | SENT<br>note |  |
|             | <ul> <li>Mentor high school students interested in computer science and AI</li> <li>Conduct monthly workshops on machine learning fundamentals</li> </ul>       |                                      |              |  |
|             | Member Association for Computing Machinery (ACM)  | Aug 2018 – Pres<br>Rem               | SENT<br>note |  |
| TALKS       | Efficient Vision Transformers for Edge Computing, MIT CSAIL Student Seminar   | Mar 2                                | 2024         |  |
|             | Adversarial Robustness in Deep Learning: Theory and Practice, Go<br>Research AI Seminar   | oogle Aug 2                          | 2023         |  |
|             | Self-Supervised Learning for Computer Vision, Stanford AI Lab<br>Colloquium   | May 2                                | 2023         |  |
|             | Neural Architecture Search for Mobile Applications, Conference o<br>Computer Vision and Pattern Recognition (CVPR) - Poster Sessi                               |                                      | 2022         |  |
|             | Introduction to Deep Learning for Computer Vision, Berkeley AI<br>Research (BAIR) Workshop  | Nov 2                                | 2021         |  |

Skills Programming Python, C++, Java, JavaScript, Go

ML/AI PyTorch, TensorFlow, JAX, Hugging Face, OpenCV

Frameworks

Tools & Docker, Kubernetes, AWS, Git, Linux

Platforms

DATABASES PostgreSQL, MongoDB, Redis, Elasticsearch