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Responsible AI:

Applying AI Principles with Google Cloud

Find links to the resources and further reading mentioned in the training.

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Resources

Module 1: Introduction

Google Cloud: Responsible AI
cloud.google.com/responsible-ai

Google Cloud: Building responsible AI for everyone
ai.google/responsibilities

Google's AI Principles
ai.google/principles/

Blog: AI at Google: our principles
blog.google/technology/ai/ai-principles/

Stanford University – Artificial Intelligence Index Report 2019
hai.stanford.edu/sites/default/files/ai_index_2019_report.pdf

ZME Science: AI is outpacing Moore's Law
zmescience.com/science/ai−is-outpacing-moores-law

Quartz: The data that transformed AI research—and possibly the world
qz.com/1034972/the-data-that-changed-the-direction-of-ai-research-and-possibly-the-world/

Google Research, 2022 & beyond: Responsible AI

https://ai.googleblog.com/2023/01/google-research-2022-beyond-responsible.html

Responsible AI at Google Research: PAIR

https://ai.googleblog.com/2023/05/responsible-ai-at-google-research-pair.html

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Responsible AI at Google Research: Technology, AI, Society and Culture

https://ai.googleblog.com/2023/04/responsible-ai-at-google-research.html

Responsible AI at Google Research: The Impact Lab

https://ai.googleblog.com/2023/03/responsible-ai-at-google-research.html

Module 2: The business case for responsible AI

Economist Intelligence Unit (EIU) key findings: Staying Ahead of the Curve: The Business Case for Responsible AI
eiu.com/n/staying-ahead-of-the-curve-the-business-case-for-responsible-ai/

Economist Intelligence Unit (EIU) full report: Staying Ahead of the Curve: The Business Case for Responsible AI
pages.eiu.com/rs/753-RIQ-438/images/EIUStayingAheadOfTheCurve.pdf

Capgemini Research Institute report: AI and the Ethical Conundrum
capgemini.com/research/ai-and-the-ethical-conundrum/

Capgemini Research Institute full report: AI and the Ethical Conundrum
capgemini.com/wp-content/uploads/2020/10/AI-and-the-Ethical-Conundrum-Report.pdf

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Module 3: AI's technical considerations and ethical concerns

E&T: Building digital trust will be essential to adoption of AI tools
eandt.theiet.org/content/articles/2020/11/building-digital-trust-will-be-essential-to-adoption-of-ai-tools/

The Harvard gazette: Ethical concerns mount as AI takes bigger decision–making role in more industries
news.harvard.edu/gazette/story/2020/10/ethical-concerns-mount-as-ai-takes-bigger-decision-making-role/

Venturebeat: Responsible AI becomes critical in 2021
venturebeat.com/2020/11/11/responsible-ai-becomes-critical-in-2021/

Capgemini Research Institute full report: AI and the Ethical Conundrum
capgemini.com/wp-content/uploads/2020/10/AI-and-the-Ethical-Conundrum-Report.pdf

Nautilus: Is Artificial Intelligence Permanently Inscrutable?
nautil.us/is-artificial-intelligence-permanently-inscrutable-5116/

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Module 4: Creating AI principles

Google's AI Principles
ai.google/principles/

Blog: AI at Google: our principles
blog.google/technology/ai/ai-principles/

Blog: Google AI Principles updates, six months in
blog.google/technology/ai/google-ai-principles-updates-six-months

Blog: An update on our work on AI and responsible innovation
blog.google/technology/ai/update-work-ai-responsible-innovation/

Blog: Taking care of business with Responsible AI
cloud.google.com/blog/products/ai-machine-learning/taking-care-of-business-with-responsible-ai

Blog: Responsible AI: Putting our principles into action
blog.google/technology/ai/responsible-ai-principles/

Nature: The global landscape of AI ethics guidelines
nature.com/articles/s42256-019-0088-2

Berkman Klein Center: Principled Artificial Intelligence: Mapping Consensus in Ethical and Rights-Based Approaches to Principles for AI
papers.ssrn.com/sol3/papers.cfm?abstract_id=3518482

Markkula Center for Applied Ethics: Technology and Engineering Practice: Ethical Lenses to Look Through
scu.edu/ethics-in-technology-practice/ethical-lenses/

TensorFlow: Responsible AI Toolkit
tensorflow.org/responsible_ai

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World Economic Forum: Empowering AI Leadership – C-Suite Toolkit
weforum.org/reports/empowering-ai-leadership-ai-c-suite-toolkit

World Economic Forum: AI Ethics Framework
weforum.org/projects/ai-ethics-framework

Module 5: Operationalizing AI principles: setting up and running reviews

Blog: Responsible AI: Putting our principles into action
blog.google/technology/ai/responsible-ai-principles/

World Economic Forum: Ethics by Design: An organizational approach to responsible use of technology
weforum.org/whitepapers/ethics-by-design-an-organizational-approach-to-responsible-use-of-technology

Google: The value of a shared understanding of AI models
modelcards.withgoogle.com/about

Google Cloud Blog: Celebrity Recognition
cloud.google.com/blog/products/ai-machine-learning/celebrity-recognition-now-available-to-approved-media-entertainment-customers

Google: Our approach to facial recognition
ai.google/responsibilities/facial-recognition/

BSR: Google's Human Rights by Design
bsr.org/en/our-insights/blog-view/google-human-rights-impact-assessment-celebrity-recognition

BSR Report Executive Summary: Google Celebrity Recognition API Human Rights Assessment
services.google.com/fh/files/blogs/bsr-google-cr-api-hria-executive-summary.pdf

Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification
gendershades.org

Google Responsible AI practices: Interpretability
ai.google/responsibilities/responsible-ai-practices/?category=interpretability

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Google Cloud Whitepaper: AI Explainability
storage.googleapis.com/cloud-ai-whitepapers/AI%20Explainability%20Whitepaper.pdf

Google People + AI Guidebook: Explainability + Trust
pair.withgoogle.com/chapter/explainability-trust

Improving skin tone representation across Google
blog.google/products/search/monk-skin-tone-scale/

Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification

proceedings.mlr.press/v81/buolamwini18a/buolamwini18a.pdf

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Module 6: Operationalizing AI Principles: issue spotting and lessons learned

Markkula Center for Applied Ethics: A Framework for Ethical Decision Making
scu.edu/ethics/ethics-resources/a-framework-for-ethical-decision-making/

Google Whitepaper: Perspectives on Issues in AI Governance
ai.google/static/documents/perspectives-on-issues-in-ai-governance.pdf

Google Whitepaper: Building a responsible regulatory framework for AI
ai.google/static/documents/building-a-responsible-regulatory-framework-for-ai.pdf

Google: Responsible AI practices
ai.google/responsibilities/responsible-ai-practices/

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Module 7: Continuing the journey towards responsible AI

Google Cloud: Responsible AI
cloud.google.com/responsible-ai

Google: Building responsible AI for everyone
ai.google/responsibilities

Reach out to the Google Cloud Responsible AI team directly
responsibleai@google.com

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