

Biography

Matthew Stewart is an AI researcher and engineer whose work spans edge computing, responsible AI governance, and healthcare AI. He holds a PhD in Engineering and Data Science and a Master's in Engineering Sciences from Harvard University, and an integrated BEng/MEng in Mechanical Engineering with First Class Honours from Imperial College London, where he was on the Dean's List for four consecutive years.

Matthew currently serves as Lead AI Researcher at Pelago Health in New York City, where he is building generative AI applications for behavioral healthcare, including LLM-powered clinical assistants for substance use treatment. Previously he served as Chief Technology Officer at Harbor.ai, where he directed a 13-person engineering team and built a neurosymbolic AI underwriting platform that scaled to process thousands of applications monthly and enabled over 90 million dollars in written premium. Before that he was a Postdoctoral Researcher at Harvard University in the Edge Computing Lab, where he co-originated the Machine Learning Sensors paradigm and co-created the HarvardX TinyML Professional Certificate, a program that has trained over 100,000 engineers across 175 countries.

His research has been published in Nature Machine Intelligence, Nature Communications, Communications of the ACM, AI Magazine, ACM FAccT, and other leading venues. His Google Scholar profile shows 897 citations with an h-index of 14 and an i10-index of 20. He has co-developed several widely adopted open-source benchmarking frameworks including NeuroBench, RobotPerf, and A2Perf, which are used by over 50 research institutions worldwide. He has also authored more than 35 articles on Towards Data Science reaching over two million readers.

Matthew holds multiple professional designations including Chartered Scientist, Chartered Mathematician, Chartered IT Professional, Chartered Statistician, and Accredited Professional Statistician from the ASA. He is a Fellow of the Institute of Mathematics and its Applications, a Fellow of the Institute of Analytics, and a Fellow of the Institution of Engineers in Scotland. He was elected as a Full Member of Sigma Xi through the Harvard chapter.

His professional service is extensive. He serves as Associate Editor of IEEE Transactions on Neural Networks and Learning Systems, a member of the Distinguished Reviewer Board of ACM Transactions on Sensor Networks, and a member of the EPSRC Peer Review College. He has reviewed manuscripts for NeurIPS, IJCAI, FAccT, ICLR, and other top conferences, evaluated grant proposals for UKRI, Innovate UK, and IEEE Tech4Good, and judged student research at Regeneron ISEF and COMAP MCM/ICM. He holds elected leadership positions as Vice Chair of two IEEE chapters in the Boston Section and serves on the IEEE Systems Council Standards Committee, the IEEE Humanitarian Technologies Board Tech4Good Committee, and the INFORMS Committee on Industry-Academia Collaborations.

Matthew has been an invited speaker at Ai4 (the largest US AI industry conference), the International Centre for Theoretical Physics in Trieste, IFORS, INFORMS, Harvard SEAS, and Drake University. He is a Kennedy Research Scholar and has received three Harvard Certificates of Distinction in Teaching and the Harvard Radcliffe Institute Exploratory Seminar Award.