

MIKE MCKENNA



Sydney, AU



+1 (401) 919-0616



mikepmckenna@protonmail.com



@relaxedplan

EDUCATION

AUSTRALIAN NATIONAL
UNIVERSITY
Canberra, Australia

*Graduate Diploma of Computing
With Distinction*

Bachelor of Laws

COLLEGE OF LAW
Melbourne, Australia

*Graduate Diploma of Legal
Practice*

TECHNICAL SKILLS

LANGUAGES

PYTHON, GO, SQL

CLOUD PROVIDERS

AWS, AZURE/DATABRICKS, GCP

DISTRIBUTED SYSTEMS

PYSPARK

KEY PACKAGES

JAX, PYTORCH, TENSORFLOW,
H2O, SCIKIT-LEARN,
MMLSPARK

PROFILE

Mike McKenna is a data scientist, data ethicist, and lawyer. Their technical focus is algorithmic auditing and risk-management frameworks for ethical AI development. They combine their engineering and legal background to contribute to policymaking at the highest levels, with work presented to the White House and the CDC. They have recently returned to Australia.

WORK EXPERIENCE

PARITY | NEW YORK

Director of Data Science | 2022 - Present

Senior Data Scientist | 2021 - 2022

- Co-led Parity's data and algorithm auditing practice, including the first known independent algorithmic audit under NYC law 2021/144.
- Co-designed Parity's AI risk framework. The framework accounted for the discovery, measurement and mitigation of a variety of AI risks in data collection, model development, and post-deployment scenarios. The framework recently beat competitors' offerings to secure a pilot at a \$450bn tech company.
- Under the broader ethical AI practice, provided professional advice, impact assessments, education, and research output for various public and private entities.
- Designed and implemented Parity's AI experimentation framework, which was used to evaluate benchmark design, model fairness, and overall audit quality.
- Led Parity's development of reinforcement-learning solutions for fair model search, coordinating with the Engineering team to support online and offline deployment scenarios.
- Reviewed proposed algorithmic accountability laws by request of legislators, including the Algorithmic Accountability Act of 2022.

CVS HEALTH | PROVIDENCE, RHODE ISLAND

Senior Data Scientist / Machine Learning Engineer | 2019 - 2021

Covid-19 Core Team - Operation Warp Speed

- Coordinated with the highest levels of state and federal government on Covid-19 vaccine distribution and adherence under Operation Warp Speed.
- Led a data science team responsible for rapidly improving vaccine distribution and answering urgent government research questions, while personally streamlining vaccine distribution in Phase 1A across several West Coast states
- Collaborated with CVS's equity teams and community stakeholders to design interventions reducing vaccine hesitancy for African-American and Hispanic populations
- Working collaboratively with senior leaders, co-designed CVS's data ethics framework.

Retail Experimentation Team

- Served as lead data scientist on various natural language processing and workforce innovation projects on tabular data.
- Led model development for outreach optimization providing incremental annual value of 5 million USD.
- Championed data ethics concerns within the team

WORLD TITLES AND RECORDS

2012 WORLD YOUTH
SCRABBLE CHAMPION

HIGHEST COMBINED SCRABBLE
SCORE BETWEEN 2 PLAYERS
(1210, JOINTLY HELD WITH
EDWARD OKULICZ)

WORK EXPERIENCE (Continued)

WIDGET BRAIN | CANBERRA, AUSTRALIA

Data Scientist | 2018 – 2019

- Generated value for large supermarket, cosmetics and theatre chains by designing demographic-based demand forecasting and roster optimization solutions.
- Empowered engineers at a large shipping company by integrating ML models with an internal tool designed to explain for root cause analysis and anomaly detection.
- Expanded existing core product by implementing deep learning extensions (LSTMs).

AUSTRALIAN NATIONAL UNIVERSITY | CANBERRA, AUSTRALIAN CAPITAL TERRITORY

Researcher, Research Assistant, Teaching Assistant | 2014 – 2017

- Researcher on Australia's first large-scale study of identity theft.
- Explained theft cost predictions to non-ML experts by leveraging interpretable random forests.
- Researcher on various other projects in political science and international relations, including projects on apex court career trajectories and Chinese economic statecraft.
- Co-facilitated interdisciplinary workshops on topics including narrative theory, AI ethics, and AI scenario planning.

MADDOCKS | CANBERRA, AUSTRALIAN CAPITAL TERRITORY

Seasonal Clerk | 2015-2016

- Supported the provision of legal services and advice in the Government practice at Maddocks
- Constructed memos and conducted legal research on a variety of legislation, regulation and case law relevant to the practice.

PUBLICATIONS

Watkins, E., McKenna, M., Chen, J. (forthcoming), '*The four-fifths rule is not disparate impact: a woeful tale of epistemic trespassing in algorithmic fairness*'. Preprint [available](#).

Sanh, V., et al (2022), '*Multitask Prompted Training Enables Zero-Shot Task Generalization*', Proceedings of the International Conference on Learning Representations. Conference paper [available](#),

McKenna, M. (2020), '*Detecting and Mitigating Bias in Machine Learning Models*', Manning Press.

Lim, D., Moutselos, M., McKenna, M. (2018), '*Puzzled out? The unsurprising outcomes of the Greek bailout negotiations*', Journal of European Public Policy.

Faunce, T., McKenna, M., Rayner, J., Hawes, J. (2016). '*Regulation of Australian Medical Professionals and National Security: Lessons from Three Case Studies*', Journal of Law and Medicine.