

CAPRI

AIR POLLUTION & RESPIRATORY ILLNESS CORRELATION STUDY

Michael Christopher

Lead on data integration and modelling

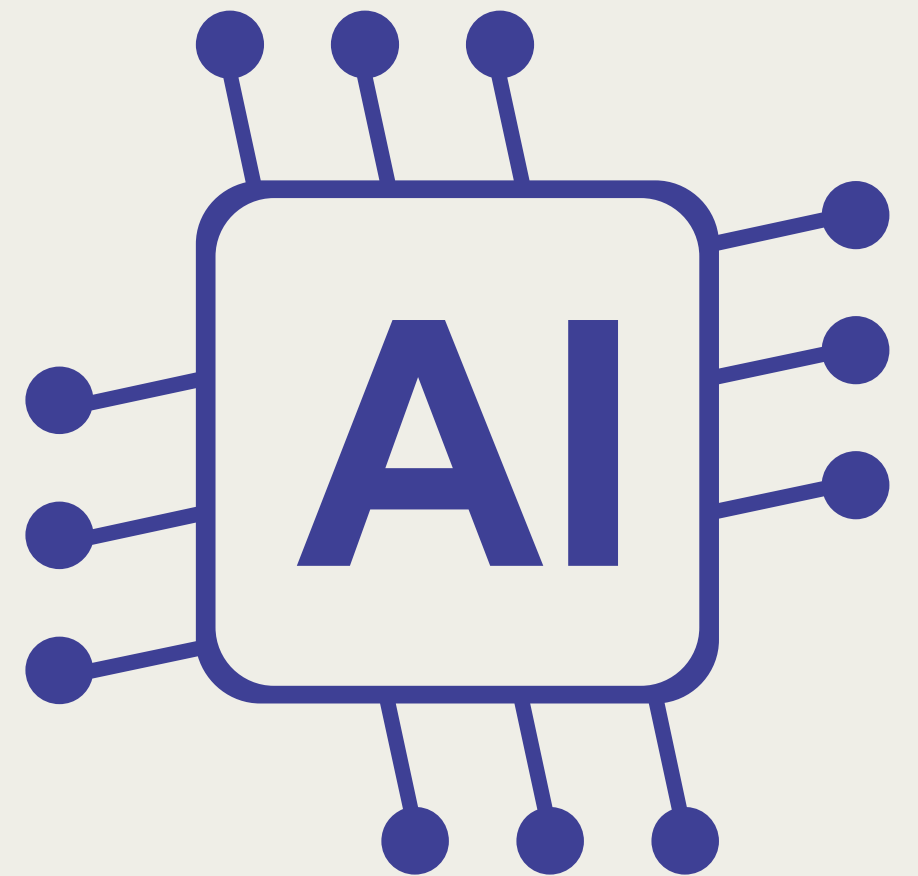
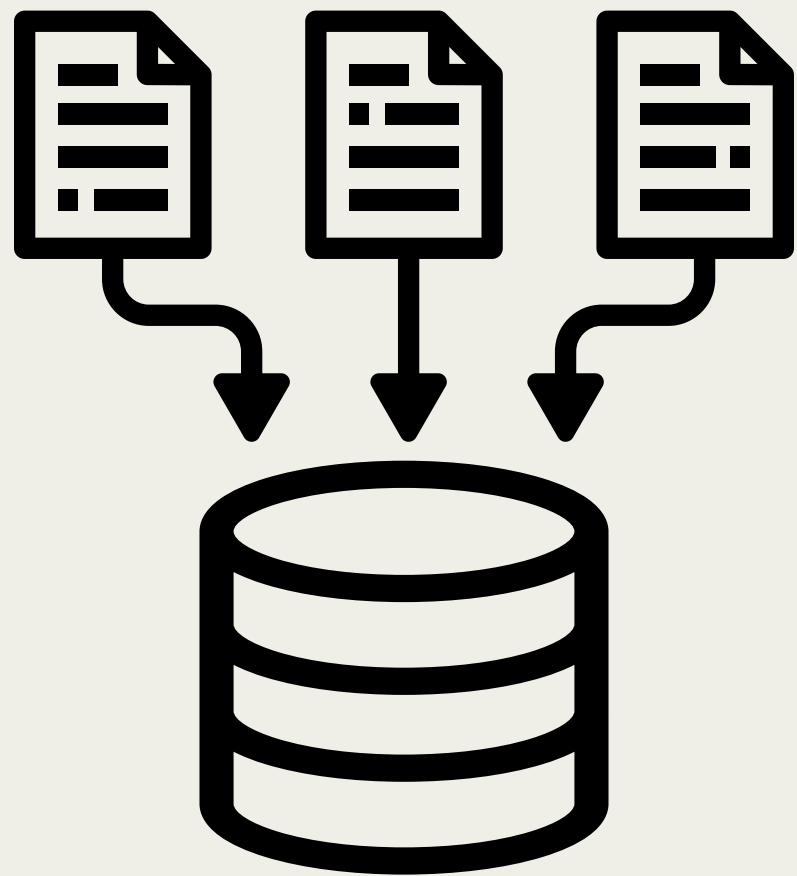
Integrating environmental
and health datasets to
uncover relationships and
inform public health
decisions.

ACHIEVEMENTS SO FAR

- Designed and implemented **data integration workflow** aligning temporal & geospatial data from WAQI & AIHW.
- Established **GitHub collaboration framework** which leads to reduced file duplication and streamlined updates.
- Introduced **weekly integration check-ins**, improving early detection of blockers.
- Led discussions on **ethical handling of sensitive health data** in line with regulations.

TECHNICAL CONTRIBUTIONS

- Dataset gathering
- Data preprocessing
- Model selection



LEADERSHIP & INITIATIVE

- Facilitated **team workshops** on integration and modelling best practices.
- Create models for repeatable analysis and visualization for upcoming groups.
- Coordinated across sub-teams to ensure **consistency in analytical approaches**.



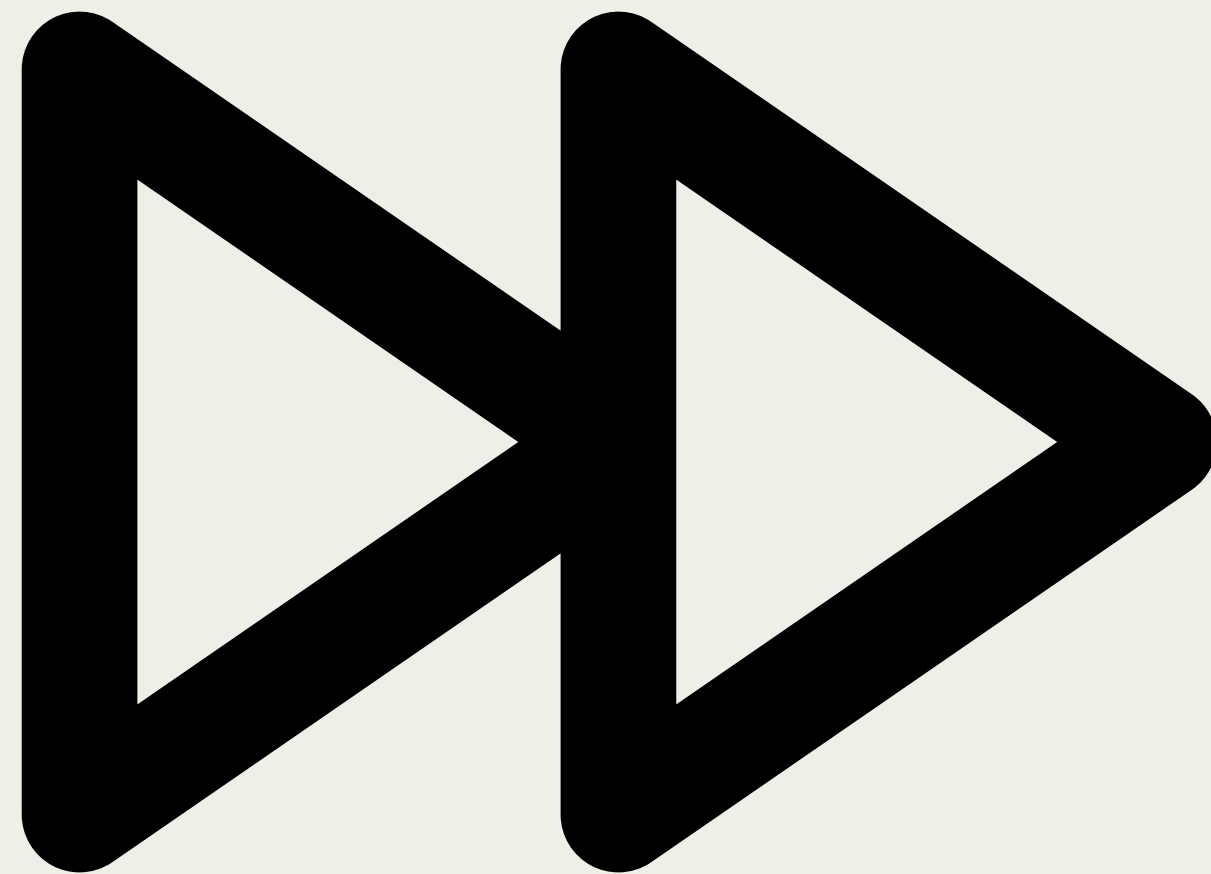
LESSONS & GROWTH

- Strengthened skills in **geospatial & temporal** data handling.
- Learned the value of **clear version control & documentation** in collaborative research.
- Developed **confidence in leading technical direction** while aligning with project goals.



NEXT STEPS & VISION

- Deliver robust regression models with stakeholder-ready visualisations.
- Finalise replicable integration scripts for ongoing use.
- Support team in interpreting results for both technical and public health audiences.



THANK

YOU