Dear Mr X,

Macquarie’s reputation for long‑term stewardship of essential infrastructure and its appetite for rigorous, data‑driven solutions resonates strongly with my approach to problem solving. As an MPhys Physics student at the University of Warwick who has built and optimised simulation and data‑analysis pipelines for real‑world technical projects, I am keen to bring my analytical toolkit and collaborative experience to the Macquarie Asset Management Graduate Programme—particularly within Asset Management Risk and the Client Solutions Group.

I am on track to complete my MPhys in Physics in July 2026 (expected First) and can commit to the twelve‑month graduate programme. My academic work and internships have given me direct experience in modelling, quantitative analysis and technical communication—skills I see as directly relevant to supporting transaction work, portfolio monitoring and risk assessment at Macquarie.  
  
During a 10‑week internship with MBDA UK’s Modelling and Algorithms team I optimised a matched‑filter algorithm using FFT methods, cutting runtime by 85% and materially improving system performance. That project required rapid literature review, rigorous testing and clear documentation for a multi‑disciplinary team—parallels I draw with the transaction support and client materials preparation described in the role. At Warwick I have run over 10,000 N‑body simulations, developed finite‑difference solvers in C and MATLAB, and produced posters and presentations summarising complex results; these experiences have strengthened my quantitative reasoning and my ability to translate technical analysis into clear outputs for stakeholders.  
  
As Project Manager for the Warwick Aerospace Society I led a 12‑member team to design and build a proof‑of‑concept UHF ground station, coordinating procurement, scheduling and technical development while introducing GitHub version control for the project. This role developed my team leadership, project governance and stakeholder reporting—skills I would bring to client‑facing tasks within the Client Solutions Group or to implementing risk frameworks across portfolio assets. My academic coordinator role and placement presentations demonstrate my comfort presenting technical material to varied audiences and my commitment to clear, concise communication.  
  
I am motivated by Macquarie’s commitment to creating lasting value for communities and clients. My extended sixth‑form research project on renewable energy and subsequent university projects on photovoltaic materials reflect a sustained interest in sustainability and infrastructure—areas I would welcome the chance to support through careful risk assessment and long‑term investment thinking. I am also eager to contribute to Macquarie’s volunteering initiatives and to learn from experienced professionals while challenging assumptions and proposing pragmatic improvements.  
  
Thank you for considering my application. I would welcome the opportunity to discuss how my technical background, analytical approach and collaborative experience can contribute to Macquarie Asset Management’s objectives and to learn more about where I can add most value within the programme.

Yours sincerely,

Maxwell Catmur