Oxford–UBS Centre for Applied AI DPhil Studentship: Personalisation at Scale through Conversational Client Models

Fully funded doctoral studentship for October 2027 entry

Student fee status: Home or Overseas
Supervisors: Prof Graham Cormode, Department of Computer Science, and Prof Gerry Tsoukalas, Saïd Business School
Course: DPhil Computer Science
Start Date: October 2027
Project: Personalisation at Scale through Conversational Client Models
Reference: UBS27PS

The Oxford–UBS Centre for Applied AI is a joint initiative between Saïd Business School and Oxford's Mathematical, Physical and Life Sciences Division.

The Centre invites applications from outstanding prospective DPhil candidates interested in the responsible development, adoption and impact of artificial intelligence in business, finance and society.

Students will join a multidisciplinary research community spanning management, finance, computer science, engineering and the social sciences. Interdisciplinary research in collaboration with MPLS colleagues in Computer Science and Engineering is highly welcome and actively facilitated by the Centre, alongside rigorous academic work with practical relevance for organisations and society.

Funding and support

The Centre offers fully funded doctoral studentships for candidates whose research interest aligns with its themes.

Support is expected to cover course fees and a grant for living costs, usually over four years. Applicants are also encouraged to pursue other University, college or external co-funding opportunities where appropriate.

The Department of Computer Science at the University of Oxford, in collaboration with Saïd Business School, is offering a fully funded DPhil studentship for a home or overseas student, to commence next academic year (October 2027). The studentship is designed as a collaborative project between Computer Science and Saïd Business School, with supervision spanning technical AI research, management and finance.

Research

This project will investigate how AI systems can build and maintain rich, continuously updated models of clients from heterogeneous interactions while respecting privacy, regulatory constraints and organisational boundaries.

The project will explore how a financial institution can move beyond conventional customer relationship management systems and static reporting towards a more comprehensive, dynamic and scalable understanding of clients, their circumstances and their evolving needs. It will consider how

diverse sources of information — including meeting transcripts, analyst reports, historical interactions and client communications — can be brought together to support more personalised advisory services, while addressing the substantial technical, organisational and governance challenges that such an approach entails.

The research will develop novel architectures for persistent client representations that can be updated from ongoing interactions, while remaining reliable, auditable and privacy-preserving. It may cover:

- Long-term memory and client modelling methods that remain accurate on sensitive personal and professional details
- Multi-modal information fusion across documents, meetings, communications and historical client interactions
- Privacy-preserving learning and inference for highly sensitive client data
- Architectures that respect regulatory requirements and internal information barriers between business units
- Evaluation methods for recommendation quality, advisor productivity, client satisfaction and suitability of advice

The expected outcome is a framework for persistent client representations, either on the bank side or on the client side, together with methods for updating those models from ongoing interactions. The project may involve building multi-agent simulations of clients and advisors, identifying suitable surrogate datasets, or undertaking a placement to work directly with appropriate source material. Evaluation will require technical definitions of suitability, grounded in recall, agreement with a reference dataset, recommendation quality and potential productivity gains for advisors.
A possible stretch direction is to examine client-side personal agents that securely retain personal information, allow clients to control what is disclosed to a bank, and provide transparency over the questions asked by advisory systems. Such an approach would open new questions around portability, assurance, faithful representation of client interests and privacy-preserving verification.

The project is highly interdisciplinary and will be jointly anchored in Computer Science and Saïd Business School, drawing particularly on management and finance perspectives. The successful candidate will have the opportunity to collaborate with members of the Oxford–UBS Centre for Applied AI, the Department of Computer Science and Saïd Business School.

Applicants must satisfy the usual requirements for studying for a doctorate at Oxford, and apply online by **Wednesday, December 2nd midday** via the DPhil in Computer Science, quoting studentship reference **UBS27PS**.

Candidates are expected to have a strong computational and/or mathematical background, with undergraduate studies in Computer Science, Mathematics, Statistics, Engineering, Machine Learning, Human-Computer Interaction, Information Systems or related disciplines. They should also have a strong interest in working at the intersection of AI, client personalisation, management and finance.

Candidates must also have good writing, communication and presentation skills (see the University's web pages on the DPhil in Computer Science for details).

For further information or for informal discussions about suitability, please contact
Graham Cormode (graham.cormode@cs.ox.ac.uk) or the Centre: applied-ai@sbs.ox.ac.uk.

For further information about the studentship or the application process, please e-mail graduate.admissions@cs.ox.ac.uk

Further information about the Centre and its research objectives can be found at the Centre website.