

Dear Prof. Michael Benedikt,

I am writing this statement to express my interest in the opening that has been announced on DBWorld in Nov, 9. I have been granted the PhD in the FernUniversitaet in Hagen, Germany (October 2008 - June 2012). The thesis subject was about spatiotemporal pattern queries, and it was advised by Prof. Ralf Hartmut Gueting. The main focus was to propose query operators to express motion patterns, along with efficient pattern matching techniques to retrieve the matching trajectories from the database. These techniques have been implemented in the open source moving object DBMS SECONDO:

(<http://dna.fernuni-hagen.de/Secondo.html/index.html>).

I have been granted the MSc in Ain Shams University, Cairo, Egypt (2002 - 2006). The thesis was in the area of content based image retrieval. We've introduced a new technique for the automatic delineation of pathology bearing regions in Computed Tomography (CT) scans. That is, given a CT scan for a patient containing regions that indicate anomaly/disease, the program could automatically delineate these segments. This is a useful preprocessing for many Computer Aided Diagnosis (CAD) programs.

Concerning my career experience, I used to work in Ain Shams University, Cairo, Egypt, as a teacher assistant (2001 - 2008). Then I spent the years (2008 - 2012) in Germany doing the PhD. After finishing the PhD, I returned back to my home town Cairo, Egypt and worked as an assistant professor in Ain Shams University. The courses I taught include: data structures, object oriented programming, geographical information systems, database systems, and object oriented databases. Currently I am co-advising a number of MSc theses in topics related to spatial and spatiotemporal databases, including:

- Developing generic trajectory similarity measures in spatiotemporal databases.
- Modeling and querying histories of time-evolving graphs.
- Building road networks by means of crowdsourcing.
- Modeling and querying semantic trajectories.

Working in the Oxford's database group is interesting to me for the following reasons:

- Your projects contributes to the core database concepts and technologies, which is the scope of my research and teaching.
- I'd like to benefit from the strong ties that you enjoy with leading industry.
- OXFORD is a prestigious, and highly ranked university.

Besides being interested in the opening, I also see that I fulfill the requirements:

- A PhD in databases with grade *summa cum laude*.

- Publications in Geoinformatica, ACM SIGSPATIAL, VLDB PhD Workshop, MDM, and SSTD.
- Experience in building systems, proven by my contribution in the SECONDO open source database system.
- Experience in teaching. During the last two years I've lectured more than 1500 (a thousand and five hundred) students.
- Potential to provide scientific supervision of graduate students, as I am currently co-advising a number of MSc students.
- Ability to work in a team.
- Excellent C++ programming skills.
- Strong verbal and written English skills.

Kindly find attached my CV, transcripts, and reference letters. I'll also ask the references to directly email the letters to your department. Looking forward to hearing from you.

Best regards,
Mahmoud Sakr