
CONTACT INFORMATION	amahgoub@purdue.edu aymahgoub@outlook.com Phone: (+1)(765) 426-7201 LinkedIn - Research Gate - Google Scholar
OBJECTIVE	I am a research assistant at Purdue University, I am in the 4th year of my PhD study in the department of computer science.
INTERESTS	Language Modeling, Natural Language Processing, Applied Machine Learning, NoSQL performance optimization, Serverless Analytics
EDUCATION	<p>Purdue University, West Lafayette, IN, US</p> <p>Ph.D., Computer Science, August 2016 - Present</p> <ul style="list-style-type: none"> • Current: Cumulative GPA 3.86 • Field: NoSql databases performance optimization. • Courses: Operating Systems, Analysis of Algorithms, Data Mining, Database Systems, Data Security and Privacy Statistical Machine Learning and Fault Tolerant Systems • Advisors: Prof. Saurabh Bagchi and Prof. Ananth Grama <p>Cairo University, Cairo, Egypt</p> <p>M.Sc., Computer Engineering, Faculty of Engineering Aug 2011 - May 2015</p> <ul style="list-style-type: none"> • GPA: 3.4 • Field: Natural Language Processing for Arabic Language Applications • Topic: Enhancing Arabic Information Retrieval using Semantic Query Expansion • Advisors: Prof: Magda B. Fayek, and Prof: Mohsen A. Rashwan <p>Cairo University, Cairo, Egypt</p> <p>B.Sc., Computer Engineering, Faculty of Engineering Sep 2006 - May 2011</p> <ul style="list-style-type: none"> • Distinction with degree of honor (85%) • Graduation Project: Automatic sentiment analysis for review posts (CNET & Amazon) and social media posts (Facebook & Twitter).
WORK EXPERIENCE	<p>Graduate Research Assistant, Purdue Univ Aug 2016 to Present Computer Science Department, Purdue University, IN, US Research: Research assistant at Dependable Computing Systems Laboratory (DCSL). My focus is to build distributed systems with scalability, dependability and adaptivity requirements. Main project involves performance tuning of the worlds leading metagenomics analysis portal (MG-RAST).</p> <p>R&D Engineer, RDI-Egypt Aug 2011 to May 2015 RDI-Egypt inc, Cairo, Egypt. Projects: Several projects for building natural language processing systems, including: Semantic Search engines, Automated Question Answering, Plagiarism Detection, Language Modeling, and Information Retrieval. Implemented a semantic search engine with query expansion that is currently used in Supreme Council of Universities - Egypt. The project was funded by ITIDA.</p>
INTERNSHIPS	<p>Software Engineer Intern, Facebook June to Sep 2019 Facebook, Cambridge, MA, USA. Machine Learning Experience (MLX) team: Implementing automated tuning frameworks for PID controllers and dynamic workloads.</p> <p>AI Research Intern, MSR, Microsoft May to Aug 2018 Microsoft, Bellevue, WA, USA. LUIS team: Integrating unsupervised and semi-supervised clustering techniques to conversational Chat-bots.</p>

Research Assistant Intern, Microsoft Corp

May to Aug 2009

Cairo Microsoft Innovation Center (CMIC), Cairo, Egypt

Bing team: Comparing performance of Neural Networks to Linear SVM classifiers for query correction.

Tools: C# , Matlab, SVMLight, LibSVM.

Software Engineer Intern, Vleo

Aug 2011 to March 2012

Vleo-Egypt, Cairo, Egypt.

Tooling team: Software developer for tools used in testing automatic parking systems.

Tools: Java, C#.

SELECTED
PUBLICATIONS

Scholar Profile

1. **Ashraf Mahgoub**, Youssef Shahin, Riham Mansour, Saurabh Bagchi. "SIMVECS: Similarity-based Vectors for Utterance Representation in Conversational AI Systems" In CoNLL2019. [Link](#)
2. **Ashraf Mahgoub**, Mohsen A. Rashwan, Hazem Raafat, Mohamed A. Zahran, and Magda B. Fayek. "Semantic query expansion for Arabic information retrieval." In EMNLP: The Arabic Natural Language Processing Workshop, Conference on Empirical Methods in Natural Language Processing, Doha, Qatar, pp. 87-92. 2014. [Link](#)
3. Mohamed Zahran, Ahmed Magooda, **Ashraf Mahgoub**, Hazem M. Raafat, Mohsen Rashwan, and Amir Atyia, "Word Representations in Vector Space and their Applications for Arabic." In CICLing 2015. [Link](#)
4. **Ashraf Mahgoub**, Paul Wood, Alexander Medoff, Subrata Mitra, Folker Meyer, Somali Chaterji, Saurabh Bagchi "Sophia: Online Reconfiguration of Clustered NoSQL Databases for Time-Varying Workloads", USENIX ATC-2019. [Link](#)
5. **Ashraf Mahgoub**, Paul Wood, Sachandhan Ganesh, Subrata Mitra, Wolfgang Gerlach, Travis Harrison, Folker Meyer, Ananth Grama, Saurabh Bagchi and Somali Chaterji "Rafiki: A Middleware for Parameter Tuning of NoSQL Datastores for Dynamic Metagenomics Workloads", ACM/IFIP/USENIX Middleware 2017. [Link](#)
6. Ahmed Magooda, **Ashraf Mahgoub**, Hazem M. Raafat, Mohsen Rashwan, and Magda B. Fayek, "RDI System for Extrinsic Plagiarism Detection (RDI-RED)." In r PAN-AraPlagDet at FIRE 2015. [Link](#)
7. Ahmed Magooda, Amr M. Sayed, **Ashraf Y. Mahgoub**, Hany Ahmed, Mohsen Rashwan, Hazem Raafat, Eslam Kamal, Ahmad A. Al Sallab, "RDI Unsupervised Framework for Text Ranking", In SemEval 2016. [Link](#)

TECHNICAL
SKILLS**Programming languages:** C++, C#, JAVA, C, Python, Shell Scripts, CQLSH**Data Bases/NoSQL:** Redis, Cassandra, ScyllaDB, MongoDB, and MySQL**Developments tools:** MS Visual Studio, Eclipse, Linux Development tools, Git Source Control.**Libraries and SDKs:** LightGBM, LightSVM, Apache LUCENE, Lemur ToolkitSCHOLARSHIPS
& AWARDS

- Purdue Graduate Fellowship, US, 2016.
- Egypt Engineering Day (EED-2011) best graduation project award.
- B.Sc. with Honours from Cairo University, May 2011.
- USENIX Student Authors Grant 2017
- ITIDA project funding, 2015
- First position in Arabic Plagiarism Detection "AraPlagDet-2015" organized by University Mentouri Constantine, Algeria
- Undergraduate Academic Outstanding Award from the Egyptian Government, 2006-2010