

MAY A. SAYED MAHMOUD

UAE • (971) 527026014 • m.mahmoud@nyu.edu

OVERVIEW

- Postdoctoral Researcher and Instructor, Computer Science Program, New York University Abu Dhabi (NYUAD)
- Former Visiting Assistant Professor, Canadian University Dubai (CUD)
- Ph.D. in Computer Science, University of Calgary
- Prior teaching roles: Instructor and Teaching Assistant (Software Engineering focus)
- Student mentorship experience
- Research focus: human–AI collaboration in Software Engineering, applying AI to improve SE processes/tools with a strong emphasis on human needs and experiences
- 5 years of industry experience across multiple institutions
- Co-founder, Sagacity Consulting, delivering innovative AI transformation and educational solutions

EDUCATION

PhD, Computer Science, May 2023

University of Calgary, Alberta, Canada.

Thesis: Mining API Usage Patterns using Structural Generalization

Advisor: Robert J. Walker

GPA: 4.0/4.0

MSc., Computer Science, April 2014

The American University in Cairo, Cairo, Egypt.

Thesis: Utilizing Graph-based Representation of Text in A Hybrid Approach to Multiple Documents Summarization

Advisor: Ahmed Rafea

GPA: 3.88/4.0

BSc., Computer Science (graduated Sum Cum Laude), February 2007

The American University in Cairo, Cairo, Egypt.

ACADEMIC APPOINTMENTS

Post-Doctoral Researcher

August 2024–Present

Computer Science Program, New York University Abu Dhabi (NYUAD), Abu Dhabi, UAE.
Abu Dhabi, UAE

Lead and publish interdisciplinary research in empirical software, mentor students, and attend conferences. Member of the SANAD (Software Analytics and Developer Support) Lab.

Instructor

January 2026 – May 2026

Computer Science Program, New York University Abu Dhabi (NYUAD), Abu Dhabi, UAE.

Assist the CS-UH-3260 Software Analytics course in the Winter 2026 semester. Responsibilities include developing teaching materials (e.g., hands-on in-class exercises and replication studies),

grading assignments, assisting in conducting and grading oral exams, and conducting in-class exercises.

Visiting Assistant Professor of Computer Science **January 2024-May 2024**

School of Engineering, Applied Science and Technology, Canadian University Dubai (CUD), Dubai, UAE.

Delivered lectures, developed curriculum, assessed student performance, and engaged in faculty collaboration, professional development, and community outreach.

Courses Taught: BCS 203-Software Specification (around 100 students). NET 405-Virtualization and Cloud Computing.

Adjunct Faculty February **2024-May 2024**

Southern Alberta Institute of Technology (SAIT), Alberta, Canada.

Led a team of five subject matter experts to revamp the Business Intelligence Program, aligning curriculum with market demands and emerging trends.

Instructor 2021-2022

Computer Science Department, University of Calgary, Alberta, Canada.

Developed and taught industry-aligned software engineering courses, guiding students through real-world projects, agile practices, and collaborative learning. Instructed CPSC 594: Software Engineering Capstone Project Course (Fall 2021-Winter 2022)

Graduate Teaching Assistant **2015-2020**

Computer Science Department, University of Calgary, Alberta, Canada.

Delivered tutorials, graded assessments, and provided student support through labs and office hours. Courses Assisted in Teaching: CPSC 594 – Software Engineering Capstone Project (Fall 2021, Fall 2018-Winter 2020), DATA201- Thinking with Data (Fall 2020), SENG 300 – Introduction to Software Engineering (Fall 2016-Winter 2017), and CPSC 203 – Introduction to Problem Solving using Application Software (Fall 2015-Winter 2016).

Subject Matter Expert **2017-2020, 2023**

Bow Valley College, Alberta, Canada.

Designed and delivered structured course content with interactive activities, assignments, and assessments to support effective, hands-on student learning. Courses Designed: DATA 1201- Introduction to Databases, DATA 2201 - Relational Databases, SODV 2401 - Algorithms and Data Structures, DATA 3201 - Database Management (the post-diploma track), TECH 2302 - Technology Information Laboratory, and SODV 2202 - Object-Oriented Programming.

Graduate Teaching Assistant **Fall 2010**

Computer Science Department, The American University in Cairo, Cairo, Egypt.

Led labs, graded assessments, held office hours, and delivered revision sessions.

Undergraduate Teaching Assistant **2005-2006**

Computer Science Department, The American University in Cairo, Cairo, Egypt.

Mentored students on web-based systems projects and assisted in teaching operating systems and database courses.

PUBLICATIONS

Matthias Kebede, **May Mahmoud**, Mohayeminul Islam, and Sarah Nadi. *MigMate: A VS Code Extension for LLM-based Library Migration of Python Projects*. International Workshop on Integrated Development Environments (IDE), 2026.

May Mahmoud, Eric Asare, Nisa Shahid, Nourhan Sakr, and Sarah Nadi. *Fast and Fleeting: Evaluating ChatGPT's Impact on Students' Computational Thinking Skills*. International Conference on Cooperative and Human Aspects of Software Engineering (CHASE), 2026.

Mohayeminul Islam, Ajay Kumar Jha, **May Mahmoud**, and Sarah Nadi. *PyMigTool: a tool for end-to-end Python library migration*. arXiv:2510.08810, 2025. (Under review at Empirical Software Engineering Journal).

Reyes, Frank, **May Mahmoud**, Fredrico Bono, Sarah Nadi, Benoit Baudry, Martin Monperrus. *Byam: Fixing Breaking Dependency Updates with Large Language Models*. arXiv preprint arXiv:2505.07522, 2025. (accepted at Empirical Software Engineering Journal).

Mohayeminul Islam, Ajay Kumar Jha, **May Mahmoud**, Ildar Akhmetov, Sarah Nadi. *An Empirical Study of Python Library Migration Using Large Language Models*. Proceedings of the 40th IEEE/ACM International Conference on Automated Software Engineering (ASE 2025), 2025.

May Mahmoud, Eric Asare, Nourhan Sakr, Sarah Nadi. *A friend or a foe? Evaluating ChatGPT's Impact on Students' Computational Thinking Skills*. Proceedings of the 3rd International Workshop on Evaluation and Assessment in Software Engineers' Education and Training (LEARNER 2025), 2025.

May Mahmoud, Robert Walker, Joerg Denzinger. *API Usage Templates Examples via Structural Generalization*. Journal of Systems and Software, 2024.

Motaz El Saban, Xin-Jing Wang, **May A. Sayed**¹. *Real-time annotation and enrichment of captured video*. Microsoft Corporation. US 20110295851 A1. Dec 1, 2011

MENTORSHIP

- Izah Sohail, Undergraduate Research Assistant.
- Nisa Shahid, Undergraduate Research Assistant.
- Hamza Arshad, Undergraduate Research Assistant.
- Matthias Kebede, Undergraduate Capstone Project.
- Enock Mecheo, Undergraduate Capstone Project.
- Eric Asare, Research Assistant.

¹ Prior to 2015 I used to use May Sayed as my legal name.

SERVICE

- Member of the Review Committee, ACM Transactions on Software Engineering and Methodology (TOSEM), 2026-2028.
- Program Committee Member, FSE 2026 - SEET Track.
- Program Committee Member, FSE 2025 - Internetware Tool Demo Track.
- Program Committee Member, SANER 2025 - Tool Demo Track.
- Peer Reviewer, Empirical Software Engineering Journal (EMSE).
- Peer Reviewer, IEEE Transactions on Software Engineering (TSE).
- Member, Outreach Committee, Canadian University in Dubai (CUD).

AWARDS AND HONORS

- Faculty of Science Graduate Scholarship, University of Calgary (2021).
- Computer Science Research Award, University of Calgary (2016, 2017).
- Graduate Teaching Fellowship, University of Calgary (2015–2020).
- Highest GPA Award, AUC (2011).
- Best Thesis Project, AUC (2006).

INDUSTRY EXPERIENCE

Co-Founder, CEO

2022- Present

Sagacity Consulting LLC, UAE

Co-founded and led Sagacity Consulting, driving AI and digital transformation initiatives, business development, partnerships, talent recruitment, and client consulting.

System Analyst

2010- 2014

The American University in Cairo, Cairo, Egypt

Led integration and migration of university information systems to Ellucian Banner, enhancing data accessibility, customizing solutions, and optimizing performance with advanced technologies.

Research Software Development Engineer

2008 – 2009

Advanced Technology Lab in Cairo, Microsoft Research, Cairo, Egypt

Contributed to innovative research efforts, developed and tested innovative prototypes, provided technical support, led knowledge-sharing sessions, and contributed to individual research and implementation projects.

Solutions Specialist

2007 – 2008

Business Development Team, ITWorx Egypt, Cairo, Egypt.

Developed technical proposals, managed end-to-end RFP processes, supported sales and marketing efforts, and drove product innovation through research and presentations.

Software Engineer

2007

ITWorx Egypt, Cairo, Egypt

Developed, tested, and deployed software solutions.

COURSES AND CERTIFICATION

Early Career Researcher Training, New York University Abu Dhabi, January 2025

Microsoft Certified Trainer, January 2024, Certification number: F26B0C-35E33D

Microsoft Azure AI Engineer Associate, October 2023

Artificial Intelligence IT Specialist Certificate, May 2023, verify.certiport.com: wXCRb-48RM

Microsoft Azure AI Fundamentals Certificate, May 2023, verify.certiport.com: 6Hy4-DwWu

Intuit Design for Delight Innovator Certificate, May 2023, verify.certiport.com: HNrV-XMWn

Certificate in University Teaching and Learning, Taylor Institute for Teaching and Learning, University of Calgary, Alberta, Canada, 2022

Getting started with Inquiry-Based Learning (IBL), Taylor Institute for Teaching and Learning, University of Calgary, Alberta, Canada, May 2021

Course Design Program, Taylor Institute for Teaching and Learning, University of Calgary, Alberta, Canada, May 2021

Handling Challenges in the Zoom Classroom, Taylor Institute for Teaching and Learning, University of Calgary, Alberta, Canada, May 2021

Sparking Students' Curiosity Through Research-Centered Teaching and Learning, Taylor Institute for Teaching and Learning, University of Calgary, Alberta, Canada, May 2021

REFERENCES

Sarah Nadi

Associate Professor

Computer Science Program

New York University Abu Dhabi

Abu Dhabi, UAE

Email: sarah.nadi@nyu.edu

Martin Monperrus

Professor

Division of Theoretical Computer Science

KTH Royal Institute of Technology

Stockholm, Sweden

Email: monperrus@kth.se

Robert James Walker

Professor

Department of Computer Science

University of Calgary

Calgary, Alberta, Canada

Email: walker@ucalgary.ca