

Meriem BEN CHAABEN

Computer Science Ph.D student

+1 438 979 7260

Montreal, Canada

[@ meriem.ben.chaaben@umontreal.ca](mailto:meriem.ben.chaaben@umontreal.ca) [in linkedin.com/in/meriem-ben-chaaben](https://www.linkedin.com/in/meriem-ben-chaaben) github.com/meriembenchaaben

EDUCATION

- 2023 - ongoing **Ph.D student, Computer Science**, At the university of Montreal (UdeM).
- 2021 - 2023 **Computer Science Master student, AI Major with thesis option**, At the university of Montreal (UdeM).
- 2020 - 2021 **Information Processing and Complexity of the living Master student**, At the National Engineering School of Tunis, Tunisia (ENIT).
- 2018 - 2021 **Software Engineering Student**, At the National Institute of Applied Science and Technology, Tunisia.
- 2016 - 2018 **Preparatory cycle**, At INSAT, Mathematics, Physics and Computer Science.

SCHOLARSHIPS

- Fall, Winter 2022 **Excellence grant from the DIRO (Department of Computer Science and Operations Research) competition**, University of Montreal (UdeM).
- Winter 2021 **International Students Scholarship**, As part of the program of the Ministry of Higher Education aiming at attracting international students to graduate programs in engineering and retaining them.
- Winter 2021 **DIRO Excellence-Writing-Support scholarship competition**, University of Montreal (UdeM).
- 2021 - ongoing **TUNISIAN National Scholarship for studies in Canada**

WORK/INTERNSHIPS

- January 2023
April 2023 **Graduate Teaching Assistant, UNIVERSITY OF MONTREAL, DIRO, (Winter 2023)**
 - > Course : Software analysis and design.
 - > Undergraduate course (taught in French)
 - > Conducting lab sessions, assisting the professor, grading assignments and holding office hours
- September 2022,
2023
December 2022.
2023 **Graduate Teaching Assistant, UNIVERSITY OF MONTREAL, DIRO, (Fall 2022, Fall 2023)**
 - > Course : Software quality and metrics.
 - > Undergraduate course (taught in French)
 - > Conducting demo sessions, grading assignments and holding office hours.
- February 2021 **Automating software Quality Benchmarking process , UNIVERSITY OF MICHIGAN-DEARBORN-ISE LAB, End of Studies Internship.**
- Jun 2021 **Using clustering techniques to create customized benchmarks for software quality assessment. Using quality analysis to estimate the cost in terms of operations frequency to achieve a quantified benefit.**
 - > Duty : Developing a module for Software Quality Benchmarking and quality target analysis.

Python Java R Clustering NSGA-II
- July 2020
September 2020 **UNIVERSITY OF MICHIGAN-DEARBORN, ISE LAB, Research Internship**
 - > Defining key concepts of container smells and anti-patterns.
 - > Collecting and cleaning Data of container-based projects.

Docker Python Git/GitHub REST API BigQuery
- Jun 2019
August 2019 **MOBILE DEVELOPMENT INTERN, EXPENSYA, TUNISIA, Internship**
 - > Supporting the Expensya mobile application lifecycle.
 - > Duties : Contributed to developing new functionalities of expense management and wrote unit tests to identify malfunctions.

Xamarin App Center TFS

PUBLICATIONS

- December 2022 | **"Towards using Few-Shot Prompt Learning for Automating Model Completion"**, CONFERENCE PAPER,
> International Conference on Software Engineering (ICSE 2023) - New Ideas and Emerging Results (NIER) track
> Authors : **Meriem BenChaaben**, Loli Burgueno, Houari Sahraoui.
> **In-person presentation date** : May 17,2023 in Melbourne, Australia.

PROJECTS

- Mai 2022 | **Designing and developing a design completion tool**, UNIVERSITY OF MONTREAL, DIRO, Geodes Research group.
Present | > Apply few prompt engineering principles as a novel approach to improve completion in domain modeling activities.
> Building an editor to assist designers in creating class diagrams.
> Conduct a user study to evaluate both the efficiency and correctness of the editor.
- September 2021 | **Learning from Java code sources to suggest concepts for the completion of class diagrams**, UNIVERSITY OF MONTREAL, DIRO, Geodes Research group.
January 2022 | > Implementing an iterative process of diagram construction where relevant concepts are suggested.
> Using MDRE principles to discover and mine Java code projects and extract data.
Creating sub graphs data and tuning machine learning models.
Evaluating the procedure.
Python MoDisco GNN MDE concepts Reverse Engineering
- January 2021 | **Classifying Musical Instruments Sound**, ENIT, Academic Project
February 2021 | > Applying Deep Learning techniques to the classification of instrumental sounds and focusing on hyperparameters analysis.
Python Librosa Keras Tensorflow
- November 2020 | **Tweets Mood Project**, INSAT, Academic Project
December 2020 | > Designing and building a big data project that collects tweets in real time to analyze and predict social mood.
Kafka Spark Pyspark
- February 2020 | **Analyzing and Detecting Fake reviews of mobile apps** - UNIVERSITY OF MICHIGAN-DEARBORN, INSAT, Final Year Project
June 2020 | > Developing a Multi-label classifier which aims to assign reviews to representative topics based on their content.
> Defining features to characterize reviews.
> Developing a classifier to automatically detect fake reviews in app stores.
Keras Scikit-learn Python Google colab
- November 2019 | **LINK - Web and Desktop Secured Application**, INSAT, Academic Project
January 2020 | > Develop a web Platform to link sponsors and organizations
> Duties : Develop a Desktop app for a chatting Module, secured by using LDAP, RSA and DES encryption.
LDAP OpenSSL PyQt5 NodeJS ANGULAR Python
- January 2019 | **Doctors' Platform**, INSAT, Academic Project
May 2019 | > Develop a web Platform to organize the communication between doctors and patients and manage online appointments (Calendar synchronization)
SCRUM ANGULAR Spring Boot JHipster MySQL

SKILLS/CERTIFICATION

Programming Languages	Java	Python	C/C++	C#	TypeScript	JavaScript
Web Frameworks	Laravel	Spring Boot	.NET	NodeJS	ANGULAR	
SGBD	ORACLE	MySQL	SQL Server			
MDE concepts, tools and languages	EMF					
Data Science	Keras	Scikit-learn	Tensorflow			
DEEP LEARNING SPECIALIZATION	DEEPLARNING.AI , COURSERA	NLP	CNN			

LANGUAGES

ENGLISH : Excellent, TOEFL (iBT) score : 98/120
FRENCH : Excellent
GERMAN : Beginner
ARABIC : Very good

EXTRACURRICULAR ACTIVITIES

April 2023 **Speaker** on the Women in Computer Science Research Panel
October 2022 **Student volunteer** in MODELS conference 2022
September 2019 **Ai Hack Tunisia**
April 20, 2019 Infor Hackathon 4.0
2018 - 2019 **Vice President** , INSAT ANDROID Club
Duties :Organizing different learning sessions and competitions.
2017 - 2018 **Treasurer and event sponsoring responsible**, IEEE CS Chapter INSAT
Duties :Organizing workshops, team-building and events.
february 2017 Contestant -INSAT Collegiate programming contest -ICPC