

CHAWKI BEN SLIMEN

Flint, MI, 48502

☎ +1 810 288 2207 ✉ chawki@umich.edu

Summary

Dedicated software developer with a strong background in Big Data and cross-platform app development using Flutter. Proficient in machine learning, data analysis, and natural language processing. Currently pursuing a Master's in Computer Science with a focus on data-driven solutions and predictive analytics.

Education

University of Michigan Flint

Master Degree in Computer Science (Expected graduation flexible upon request)

Sep. 2024 –

Flint, MI

Institute of Computer Science and Management of Nabeul

Master's degree in big data

Leaders University Oct. 2022 – May 2024

Nabeul, Tunisia

Institute of Computer Science and Management of Nabeul

National diploma, Software Engineering and Information Systems 06 July 2022

Leaders University Oct. 2019 – July 2022

Nabeul, Tunisia

Grombalia High School

Bacalaureat degree 29 June 2019

Sep. 2014 – June 2019

Grombalia, Nabeul, Tunisia

Experience

Internship, Carte Assurances

extended internship

Feb. 2022 – July 2023

Tunis, Tunisia

- During my internship at Carte Assurance from February 2022 to July 2023, I developed a help desk application for both web and mobile platforms using Flutter. I collaborated closely with a team to improve user experience and functionality, actively contributing to project planning and implementation. This experience allowed me to refine my technical skills and work in a dynamic team environment.

Research Project – University of Michigan-Flint

Student Researcher, Mining Software Repositories (MSR 2025)

Sep. 2024 – Dec. 2024

Flint, MI

- Co-led a study on vulnerability overestimation in Maven projects, focusing on bloated dependencies.
- Collected and filtered data from the Maven Central Graph; used DEPCLEAN to identify unused libraries.
- Quantified false positives in vulnerability assessments and co-authored a paper accepted at MSR 2025.
- Presented findings on reducing inflated security risks by eliminating non-impactful transitive dependencies.

AI Course Project, University of Michigan-Flint

Sentiment Analysis Web App

Sep. 2024 – Dec. 2024

Flint, MI

- As part of my AI course, I developed a sentiment analysis web application using Hugging Face Transformers and Gradio. I fine-tuned a DistilBERT model on a custom dataset to classify text as Positive, Neutral, or Negative. The app supports single and batch text input, file upload for bulk analysis, and displays results with pie chart visualizations. This project enhanced my practical skills in NLP, model deployment, and user interface design.

Projects

Help Desk Application – Web & Mobile Platforms

Feb. 2022 – Jul 2023

- * Developed a cross-platform help desk application for both web and mobile, enabling users to submit and track support requests.
- * Integrated features like real-time notifications, ticket management, and user authentication.
- * Collaborated with team members to design an intuitive UI, improving user experience across devices.
- * Used Agile methodologies to manage development cycles and ensure timely delivery of project milestones.

Research Paper – MSR 2025

Sep. 2024 – Dec. 2024

- * Co-authored "Analyzing Vulnerability Overestimation in the Maven Ecosystem", accepted at MSR 2025.
- * Analyzed over 2,000 Maven artifacts to study the effect of bloated dependencies on vulnerability inflation.
- * Used DEPCLEAN and vulnerability datasets to identify false positives in security assessments.
- * Demonstrated that 97% of flagged vulnerable dependencies were bloated and non-impactful.

Sentiment Analysis App – Hugging Face & Gradio

Sep. 2024 – Dec. 2024

- * Fine-tuned a DistilBERT model on a custom sentiment dataset (Positive, Neutral, Negative) using the Hugging Face Transformers library.
- * Achieved 91% accuracy and 0.89 F1-score on the validation set.
- * Built an interactive web app using Gradio to analyze text inputs or uploaded CSV/Excel files, with real-time pie chart visualizations.
- * Implemented sentiment analysis for single/multiple comments and bulk review data to support practical NLP use cases.

Publications

Taha Draoui, Faten Jebari, **Chawki Ben Slimen**, Munjaap Uppal, Mohamed Wiem Mkaouer.

Analyzing Vulnerability Overestimation in the Maven Ecosystem.

To appear in the 21st International Conference on Mining Software Repositories (MSR 2025), Ottawa, Canada.

Technical Skills

General Skills: Big Data, Machine Learning, Deep Learning, NLP, Computer Vision

Programming Languages: Python, Java, Dart, SQL, R, JavaScript, HTML/CSS

Developer Tools: VS Code, PyCharm, Google Colab, Kaggle, Git, JIRA

Technologies/Frameworks: Pandas, TensorFlow, Keras, Scikit-Learn, Hadoop, Spark, Flutter, Beautiful Soup, Power BI, SSIS

Database Technologies: MySQL, MongoDB, Neo4j, Firebase

Cloud/DevOps Technologies: AWS, Google Cloud Platform, Docker

Languages

Arabic: Native language

English: B2 Certified

French: Proficient