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Top Skills

CrewAI
LangGraph
AutoGen

Languages

Bamoun (Native or Bilingual)
English (Professional Working)
French (Full Professional)

Certifications

Certification in Electronics &
Instrumentations from Birla Institute
of Technology & Science, Pilani,
India

Python Programming for Developers

Publications

Stability Analysis of Slotted Aloha
Protocol for Cognitive Radio Users
Using TUA

Internet of Things (IoT) Security
Architecture for Smart Cities

Entity and Relation Extractions
for Threat Intelligence Knowledge
Grapghs

TIRE: Advancing Threat Intelligence
Relation Extraction with a Novel
Data-Centric Framework

TIJERE: A novel threat intelligence
joint extraction model based on
analyst expert knowledge

Inoussa Mouiche

CyberSecurity & AI Researcher | Data Scientist | Software Engineer
Waterloo, Ontario, Canada

Summary

I am a cybersecurity researcher and engineer specializing in threat
intelligence, artificial intelligence, large language models, and
knowledge modeling. My academic and professional background
spans cybersecurity, software engineering, agentic AI, and applied
mathematics. I have developed advanced expertise in machine
learning, data-driven security analytics, and automated entity–
relation extraction from cyber threat intelligence (CTI) reports.
I have authored and co-authored several peer-reviewed publications
in top conferences and journals (Computers & Security, Knowledge-
Based Systems, Springer, SECRYPT, etc.), focusing on cyber threat
intelligence automation, NER/RE models, and dataset integration
frameworks aligned with standards like STIX 2.1. These works
contribute to advancing AI-driven cybersecurity systems and
reproducible research through the release of open-source datasets
and frameworks.
Beyond research, I bring hands-on experience in software
development (Python, Java, JavaScript/Node.js, React, Django,
C/C++), data engineering (Hadoop, Spark), and cloud computing
(AWS Certified Developer Associate). I am equally comfortable
building production-ready applications, developing AI/ML models,
and deploying scalable cybersecurity solutions.

GitHub https://github.com/imouiche?tab=repositories
Website: http://imouiche.wixsite.com/inoussa/projects

Experience

University of Windsor
AI/ML & Cybersecurity Research Assistant
January 2022 - Present (3 years 11 months)
Windsor, Ontario, Canada

Developed intelligent extraction frameworks that convert unstructured threat
reports into queryable knowledge graphs for scalable, explainable cyber

defence. I built LLM agents, domain-adapted transformers}, and ML pipelines for real deployments.

Agfa HealthCare
6 years 8 months

Bilingual Customer Support Analyst and Data Coordinator
October 2021 - Present (4 years 2 months)

Global IT Monitoring Specialist
April 2019 - October 2021 (2 years 7 months)
Waterloo, ON, Canada

• Operate and improve mission-critical enterprise imaging platforms (EI/PACS/VNA) for hospitals; lead incident response, RCA, and stability/upgrade projects.
• Built scripted log analysis and health checks (Python/SQL) that lowered mean-time-to-repair and caught regressions pre-release.
• Partnered with product/infra teams on secure deployment changes (Windows/Linux, VMware, Oracle/MS-SQL, NetApp) and interoperability (DICOM/HL7/FHIR).
• Maintained virtualized estates (VMware), tuned DB queries, and validated hotfixes; strengthened change control and rollback plans.

Gide
Technology Consultant
November 2018 - March 2019 (5 months)
Kitchener/Waterloo, Canada Area

• Built text-mining pipelines (Python/Node/Selenium) for large review corpora; sentiment and topic models into actionable dashboards.
• Helped transition research prototypes toward production constraints (latency, reliability, data quality)

SAP
Network and Application Support Engineer
October 2017 - October 2018 (1 year 1 month)
Waterloo, ON, Canada

• Delivered remote/on-call support for SAP enterprise customers across cloud and on-prem estates, applying ITIL practices for SLA-driven incident, change, and problem management.
• Designed and deployed SAP Fiori apps and OData/CDS services (JavaScript, Java, HTML5/XML, ABAP) powering real-time analytics and KPI dashboards.

• Authored SAP Knowledge Base articles, wikis, and blogs that standardized fixes and reduced TTR for global engineers.
• Strengthened foundations for production-grade software (APIs, data models, observability, on-call) directly transferable to ML/MLOps and secure AI service delivery.
• Troubleshoot and configured SSL certificate, SAML2, HTTP/s and web dispatcher/proxy servers

African Institute for Mathematical Sciences (AIMS)
Research and IT Assistant
August 2015 - June 2016 (11 months)
Limbe BP 608, South West region, Cameroon.

• Built mathematical models and simulation algorithms to optimize fluid-dynamics behavior in industrial sinks; delivered code, analyses, and recommendations improving process efficiency.
• Implemented numerical methods and experiment pipelines in Python/SageMath; documented results for engineering stakeholders.
• Tutored graduate students in software development and scientific computing; mentored project execution and reporting.
• Mentored six M.Sc. students to successful thesis completion (project scoping, experimental design, coding, data analysis, scientific writing).
• Supported delivery of graduate courses in Software Development, Scientific Computing, and Cryptography with international faculty.
• Organized seminars and knowledge-sharing sessions to improve research rigor and collaboration.

Cyber Café 4G
IT Support Assistant
January 2014 - July 2014 (7 months)
Yaounde-Cameroon

• Installed and updated software packages and operating systems, helped configure and upgrade computer hardware systems.
• Provide remote & email technical supports to CC4G customers and partners
• Troubleshoot and diagnosed PC computer and Network problems and solved possible faults

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Education

University of Windsor

Doctor of Philosophy - PhD, Computer Science · (January 2022 - December 2025)

University of Victoria
Master, Telecommunications Engineering and Information Security · (2016 - 2017)

African Institute for Mathematical Sciences-Cameroon
Master's degree, Applied Mathematics and Computer Sciences · (2014 - 2015)

B. K. Birla Institute of Engineering & Technology, Pilani
Certificate, Electronic and Instrumentations · (2012 - 2013)

University of Yaounde I
Master's degree in Electronics, Optimal Designs of Digital Filters · (2011 - 2013)