Mohammad Jamil Ahmad, Ph.D.

Cybersecurity Professional | Machine Learning Researcher | Educator | Software Engineer
Morgantown West Virginia, USA
+1(304)-282-8864| mj.ahmad258@gmail.com

PROFESSIONAL SUMMARY

Cybersecurity and IT professional with extensive experience in higher education, AI research, and software engineering. Knowledgeable in cybersecurity practices, machine learning applications, and data analytics, with a focus on solving complex software engineering challenges. More than a decade long record of designing and teaching in multicultural and global academic programs, mentoring graduate and undergraduate students, and leading capstone projects. Proficient in developing machine learning models for predictive analysis and classification, alongside a strong background in software security and cybercrime management. Committed to advancing both academic and industry-driven initiatives through innovative, data-driven solutions.

AREAS OF EXPERTISE

- ✓ Cybersecurity
- ✓ Business Cyber Analytics
- ✓ Cybersecurity Penetration Testing
- ✓ Machine Learning and AI Development
- ✓ Predictive Modeling
- ✓ Data Analytics
- ✓ Software Engineering
- ✓ Software Security
- ✓ Database Development and Programming

EDUCATION

Doctor of Philosophy in Computer Science — Aug 2021

Majoring in Software Engineering and Data Analytics
West Virginia University - Morgantown, West Virginia, USA
Dissertation title: *Analysis and Classification of Software Fault-proneness and Vulnerabilities*

Master of Science in Information Systems — Dec 2008

Marshall University - Huntington, West Virginia, USA

Bachelor of Science in Management Information Systems — Jun 2006

An-Najah National University - Nablus, Palestine

Publications, Grants, and Academic Contributions

- Ahmad, Mohammad Jamil, Katerina Goseva-Popstojanova, and Robyn R. Lutz. "The untold impact of learning approaches on software fault-proneness predictions: an analysis of temporal aspects." Empirical Software Engineering 29.4 (2024): 87.

- Goseva-Popstojanova, Katerina, Mohammad Ahmad, and Yasser Alshehri. "Software fault proneness prediction with group lasso regression: On factors that affect classification performance." 2019 IEEE 43rd Annual Computer Software and Applications Conference (COMPSAC). Vol. 2. IEEE, 2019.

- Haneen Hijaz, Yasser Al Shehri, Mohammad Jamil Ahmad. “Static Software Metrics and Change in Code: An Explanatory Analysis” The Journal of Systems & Software 2024. Submitted – Waiting for response.

- Mohammad Ahmad and Katerina Goseva-Popstojanova “Empirical analysis of security related bug reports: A replicated study based on opensource operating systems”. Submitted – waiting for acceptance.

- Chris Ramezan, Mohammad Jamil Ahmad, Frank Hatten. “Cybersecurity Penetration Testing Jobs: Trends and skills requirement”. In preparation for submission.

- Mohammad Ahmad and Katerina Goseva-Popstojanova “Multimodal Machine Learning Approach for Software Bug Report Classification”. Working paper

- Google Cybersecurity Clinic Grant 2024 (Co PI). Not granted.

- Data contribution: Tanner D. Gantzer, (2019). Security Bug Report Classification using Feature Selection, Clustering, and Deep Learning.

- Joshua Hernandez, Mohammad Jamil Ahmad, and Katerina Goseva-Popstojanova. Analysis of Software Vulnerabilities in Ubuntu Operating System, 2019 Summer Undergraduate Research Symposium, West Virginian University, Morgantown WV, USA.

- Data contribution: Alshehri, Y. A. (2018). Explanatory and Causality Analysis in Software Engineering.

- Lucas K. Darnell , Mohammad Jamil Ahmad, and Katerina Goseva-Popstojanova. Software Fault-Proneness: An Exploration in Improving Prediction Accuracy. 2016 Summer Undergraduate Research Symposium, West Virginian University, Morgantown WV, USA.

CERTIFICATIONS AND TRAININGS

The Association of College and University Educators (ACUE)
Creating an Inclusive and Supportive Online Learning Environment
Currently obtained badges:

- *Welcoming Students to Online Learning*
- *Promoting Civil Online Learning Environment*
- *Ensuring Equitable Access to Online Learning*

Quality Matters Standards certified
Teaching and Learning Commons West Virginia University
January 2019

LGBTQ+ Safe-Zone trained
LGBTQ+ Center - West Virginia University
April 2020

- Learned the necessary knowledge and tools to serve as an ally to the LGBTQ community on WVU's campus.

R Software Carpentry Workshop
Software Carpentry | West Virginia University
April 2018
Master Critical Thinking certified trainer.
Arete Training & Technical Group for Educational & Administrative Consultations Amman, Jordan
July 2010 and Aug 2012

OTHER RELEVANGT IT SKILLS

- ✓ Python, R, Java, .Net, C#.
- ✓ Linux
- ✓ Machine Learning and AI developer and researcher
- ✓ Professional Databases development and programming skills (ORACLE, ORACLE Dev, SQL / PL/SQL).
- ✓ Experienced in data analytics using R and SPSS.
- ✓ Experienced in C#, Java, and Python.
- ✓ Experienced researcher in machine learning, data and text mining and data analytics.
- ✓ Advanced knowledge of MS office package applications.

- ✓ Rapid self-learner, self-sufficient and considerable resourcefulness.
- ✓ Ability to work individually, cooperatively, and collaboratively.
- ✓ Excellent mathematical, critical / creative thinking and critical thinking skills.
- ✓ Excellent training and customer support skills.

LANGUAGES

Arabic
Native Language

English
Full Professional/Bilingual Proficiency