Mohammad D. Alahmadi

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Professional Summary

I'm interested in the ways that Artificial Intelligence (AI) can be used to extract useful information from large real-world data sets including texts and images. I'm always looking for opportunities and challenges that could sharpen my technical skills in both academia and industries. For the academia, I have published papers in the top journals in my field with high impact factors, both with other collaborators and as a solo author. For the technical practices, I have been contributing to several IT projects in a wide range of topics over the last decade, working as a freelancer, a student, and a competitor.

Education

Florida State University, Tallahassee, USA   Tallahassee, USA
Ph.D. in Computer Science (Focus: Deep Learning), Advisor: Sonia Haiduc   January 2018–December 2020

- **Thesis:** Identifying and Extracting Information from Video Programming Tutorials to Support Developer Knowledge Discovery
- **GPA:** 3.96/4.00

Florida State University, Tallahassee, USA   Tallahassee, USA
M.S. in Computer Science (Focus: Computer Vision), Advisor: Jie Yang   January 2016–December 2017

- **Thesis:** Mobile Augmented Reality in Indoor Environment
- **GPA:** 3.96/4.00

King Abdulaziz University B.Sc. Degree in Information Technology   Jeddah, KSA
B.Sc. Degree in Information Technology (Focus: Mobile Computing)   August 2008–June 2012

- **Capstone Project:** "Electronic Emergency System"
- **GPA:** 4.87/5.00

Experience

University of Jeddah   Jeddah, Saudi Arabia
Assistant Professor   January 2020–current

Florida State University   Tallahassee, USA
Lead Teacher Assistant   January 2018–December 2020
Research Assistant

King Abdulaziz University   Jeddah, Saudi Arabia
Teacher Assistant   January 2014–August 2014

General Authority of Civil Aviation   Jeddah, Saudi Arabia
Programmer   October 2012–January 2014

Saudi Arabian Airlines   Jeddah, Saudi Arabia
Trainee: Programmer   2011–2012

Publications

[1]   **M. Alahmadi**, "Medical image segmentation with learning semantic and global contextual representation", *Diagnostics*, vol. 12, no. 7, 2022, ISSN: 2075-4418.

[2]   **M. Alahmadi**, "Multi-scale attention u-net for skin lesion segmentation", *IEEE Access*, 2022.

[3]   **M. Alahmadi**, "Texture attention network for diabetic retinopathy classification", *IEEE Access*, 2022.

[4]   **M. Alahmadi**, "Vid2xml: Automatic extraction of a complete xml data from mobile programming screencasts", *IEEE Transactions on Software Engineering*, 2022.

[5]   K. Mursi, **M. Alahmadi**, F. Alsubaei, and A. Alghamdi, "Detecting islamic radicalism arabic tweets using natural language processing", *IEEE Access*, 2022.

[6]   E. Parra, **M. Alahmadi**, A. Ellis, and S. Haiduc, "A comparative study and analysis of developer communications on slack and gitter", *Empirical Software Engineering*, vol. 27, no. 2, pp. 1–33, 2022.

[7]   J. Alsubhi, A. Gharawi, and **M. Alahmadi**, "A performance study of membership inference attacks on different machine learning algorithms", *Journal of Information Hiding and Privacy Protection*, vol. 3, no. 4, pp. 193–200, 2021, ISSN: 2637-4226.

[8]   **M. Alahmadi**, A. Khormi, and S. Haiduc, "GUI-focused overviews of mobile development videos", in *Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering: Companion Proceedings*, 2020, pp. 314–315.

[9]   **M. Alahmadi**, A. Khormi, and S. Haiduc, "Ui screens identification and extraction from mobile programming screencasts", in *Proceedings of the 28th International Conference on Program Comprehension*, 2020, pp. 319–330.

[10] **M. Alahmadi**, A. Khormi, B. Parajuli, J. Hassel, S. Haiduc, and P. Kumar, "Code localization in programming screencasts", *Empirical Software Engineering*, vol. 25, no. 1, pp. 1536–1572, 2020.

[11] **M. Alahmadi**, A. Tayeb, A. Khormi, E. Parra, and S. Haiduc, "UIScreens: Extracting user interface screens from mobile programming video tutorials", in *Proceedings of the 28th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering*, 2020, pp. 1660–1664.

[12] A. Khormi, **M. Alahmadi**, and S. Haiduc, "A study on the accuracy of ocr engines for source code transcription from programming screencasts", in *Proceedings of the 17th IEEE/ACM Working Conference on Mining Software Repositories*, 2020, pp. 376–386.

[13] **M. Alahmadi**, J. Hassel, B. Parajuli, S. Haiduc, and P. Kumar, "Accurately predicting the location of code fragments in programming video tutorials using deep learning", in *Proceedings of the 14th International Conference on Predictive Models and Data Analytics in Software Engineering*, 2018.

[14] **M. Alahmadi** and J. Yang, "Towards efficient mobile augmented reality in indoor environments", in *International Conference on AI and Mobile Services*, Springer, 2018, pp. 106–122.

Professional Services

- **Reviewer:**   2018–current
  - IEEE Transactions on Software Engineering (TSE)
  - Empirical Software Engineering (EMSE)
  - International Conference on Software Engineering (ICSE)
  - Foundations of Software Engineering (FSE)

Skills

- **Machine Learning:** Data analysis
- **Computer Vision:** Image analysis
- **Programming:** Python, Java, C, C#
- **Mobile Programming:** Android, Flutter
- **Database:** MySQL, Microsoft SQL Server, SQLite

Selected Projects

- **Vid2XML:** Extract XML data from videos
- **Glassfit:** Try on glasses
- **Parking Finder:** Mobile apps for parking management
- **Future Shopping:** Shop using a robot

Awards

- **GlassFit:** Hackathon on Computer Vision by Thakaa center   2021
  - One of the best three projects out of 230 projects
- **EES:** Annual Conference on Undergraduate Research on Applied Computing - Zayed University   2012
  - One of the best six projects out of 90 international projects
  - urc.ac
- **EES Project:** Best Undergraduate Project - FCIT, King Abdulaziz University   2012
- **EES:** National Technology Entrepreneurship Challenge   2012
  - Top ten out of 100 projects