

# Emad Alghamdi

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## Education

<b>University of Melbourne, Australia</b> <i>PhD in Computational Linguistics</i> Thesis: Automated Video Difficulty Assessment Co-supervised by Dr. Paul Gruba (Linguistics) and Dr. Eduardo Velloso (Computer Science)	<b>2017 – 2021</b>
<b>Missouri State University, USA</b> <i>M.S. in Educational Technology</i> GPA: 4/4	<b>2012 – 2014</b>
<b>Missouri State University, USA</b> <i>M.A. in English Linguistics</i> GPA: 3.97/4	<b>2010 – 2013</b>

## Projects

<b>Automatic Text Difficulty Adjustment</b> ◦ An innovative web reading system that automatically adjusts reading difficulty ◦ The system uses advanced NLP algorithm, sensor technologies (eye-tracker and thermal camera) ◦ The project is a collaboration with expert researchers from Monash Uni, Melbourne Uni, and Adobe Inc.	<b>2022–2023</b>
<b>Arabic Font Optimization</b> ◦ The project is a collaboration with expert researchers from Google Font Team.	<b>2022–2023</b>
<b>Arabic Text Readability</b> ◦ An open-sourced web app for assessing text readability for Saudi students in general education (K1-12) ◦ The system uses advanced NLP algorithm and machine learning (weak supervision)	<b>2022–2023</b>
<b>AUVANA</b> ◦ A cross-platform desktop software for automated video analysis ◦ Uses advanced computer vision algorithms for analyzing complexity in videos	<b>2021</b>
<b>KAUx</b> ◦ KAUx is the first MOOC platform in Saudi Arabia. ◦ It offers free online training courses to university faculties and students	<b>2013-2017</b>
<b>CrowdyQ</b> ◦ A virtual crowdsourcing platform for generating and evaluating test items	<b>2015</b>

## Scholarships and Awards

<b>Best PhD thesis (nomination)</b> ◦ My PhD thesis was nominated for the best PhD thesis award in the University of Melbourne	<b>2021</b>
<b>Research Excellence Award</b> ◦ Awarded by the Saudi Cultural Attaché in Australia.	<b>2019</b>
<b>PhD Scholarship</b> ◦ Received for pursuing my PhD research at the University of Melbourne.	<b>2017–2021</b>
<b>Excellence Award</b> ◦ Awarded by the Saudi Cultural Attaché in USA for excelling academically throughout the school year.	<b>2012-2013</b>
<b>Certificate of Appreciation</b> ◦ Awarded by the Saudi Cultural Attaché in Washington, D.C for leadership as a president of the Saudi Club at Missouri State University.	<b>June 2019</b>
<b>Letter of Appreciation</b> ◦ Awarded by the Saudi Cultural Attaché in Washington, D.C for writing an article about volunteerism.	<b>June 2019</b>

## Experience

<b>Director of the AI in Language Learning &amp; Assessment Lab</b> <i>http://www.ailla.tech</i>	2022
<b>Head of Research Unit</b> <i>English Language Institute, King Abdulaziz University</i>	2022
<b>Assistant Professor in Computational Linguistics</b> <i>King Abdulaziz University</i>	2022
<b>Data Scientist Intern</b> <i>Melbourne Data Analytics Platform, University of Melbourne</i>	September 2020 – February 2021
<ul style="list-style-type: none"><li>Worked on NLP projects using weak supervision techniques</li></ul>	
<b>Causal Instructor</b> <i>University of Melbourne</i>	July 2019 – August 2019
<ul style="list-style-type: none"><li>Taught a Master-level course on Technology and Language Learning</li></ul>	
<b>Founder &amp; CEO</b> <i>Dropzin - On-demand Shipping &amp; Delivery</i>	2015 – 2017
<ul style="list-style-type: none"><li>Founded the startup</li><li>Administered day-to-day operations</li></ul>	
<b>Director of e-training Unit</b> <i>King Abdulaziz University</i>	2014 – 2016
<ul style="list-style-type: none"><li>Founded KAUX an Arabic MOOC platform</li><li>Led a team of faculty members, administrators, and on-site and remote technicians</li><li>Designed and developed two MOOCs on innovation and critical thinking</li></ul>	
<b>Head of Distance Learning Unit</b> <i>King Abdulaziz University</i>	2013 – 2016
<ul style="list-style-type: none"><li>Administered online English programs (7K+ Students) and 40+ instructors</li><li>Trained faculty members on using several education technologies</li></ul>	
<b>Lecturer</b> <i>King Abdulaziz University</i>	2008-2010 – 2013-2016
<ul style="list-style-type: none"><li>Taught English courses for university students</li></ul>	

## Personal Development

<b>Machine Learning with TensorFlow on Google Cloud Platform</b> <i>Coursera-A 5-course specialization by Google Cloud</i>	2018
<ul style="list-style-type: none"><li>Introduction to TensorFlow</li><li>How Google does Machine Learning</li><li>Feature Engineering</li><li>Launching into Machine Learning</li><li>Art and Science of Machine Learning</li></ul>	
<b>International License for Entrepreneurship</b> <i>75-hour Training Course, Jeddah, Saudi Arabia</i>	2016
<b>Design and Development of Educational Technology, MIT</b> <i>edX</i>	2014
<b>Entrepreneurship 101: Who is your customer?, MIT</b> <i>edX</i>	2014
<b>Statistics: Making Sense of Data, University of Toronto</b> <i>Coursera</i>	2014
<b>Competitive Strategy, Ludwig-Maximilian University of Munich</b> <i>Coursera</i>	2013
<b>Justice, Harvard</b> <i>edX</i>	2013
<b>Inspiring Leadership through Emotional Intelligence, Case Western Reserve University</b> <i>Coursera</i>	2013
<b>Internet History, Technology, &amp; Security, University of Michigan</b> <i>Coursera</i>	2012

## Publication

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### Book Chapters:

- Nawaz, Sadia, **Alghamdi, Emad A**, et. al (2022). Understanding the role of AI and learning analytics techniques in addressing task difficulties in STEM education. In: Artificial Intelligence in STEM Education: The Paradigmatic Shifts in Research, Education, and Technology.
- **Alghamdi, Emad A** (2018). Effects of Using Multimodal Glosses in Video Games to Enhance Incidental Vocabulary Learning and Retention. In: Handbook of Research on Integrating Technology Into Contemporary Language Learning and Teaching. Chap.2, pp.427–448

### Journal Articles:

- **Alghamdi, Emad A**, Paul Gruba, and Eduardo Velloso (in press). The Relative Contribution of Verbal Complexity to Second Language Video Lectures Difficulty Assessment. The Modern Language Journal: 4/194 (Linguistics)
- **Alghamdi, Emad A**, Paul Gruba, Ahemd Mersi, et al. (2022). The Use of Lexical Complexity for Assessing Difficulty in Instructional Videos. Language Learning and Technology. 8/194 (linguistics).
- **Alghamdi, Emad A**, Eduardo Velloso, and Paul Gruba (2021). AUVANA: An Automated Video Analysis Tool for Visual Complexity. DOI: <https://doi.org/10.31219/osf.io/kj9hx>
- **Alghamdi, Emad A** and Sayyed Rashid Shah (2018). Exploring the Effects of Mobile-Based Audience Response System on EFL Students' Learning and Engagement in a Fully Synchronous Online Course. International Journal of English Linguistics 8.3, p.92. DOI:10.5539/ijel.v8n3p92
- **Alghamdi, Emad A** and Hussam Rajab (2016). Unmonitored students self-created WhatsApp groups in distance learning environments: A collaborative learning tool or cheating technique. International Journal of Research, 5.2, pp.71–82
- **Alghamdi, Emad A** (2016). Untangling Multimedia Effects on EFL Incidental Vocabulary Learning via Playing an Online Hidden-Object Game. International Journal of Computer-Assisted Language Learning and Teaching, 6.1, pp.24–39. ISSN:2155-7098
- **Alghamdi, Emad A** (2015). The Representation of Islam in Western Media: The Coverage of Norway Terrorist Attacks. International Journal of Applied Linguistics and English Literature, 4.3, pp.198–204. ISSN:22003592
- **Alghamdi, Emad A** (2014). Gulf Pidgin Arabic: A Descriptive and Statistical Analysis of Stability. International Journal of Linguistics, 6.6, p.110

### Conference Proceedings:

- **Alghamdi, Emad A**, Fahad Otaif, and Paula Gruba (2018). Designing a video playing interface for second language learners. ASCILITE2018. November, pp.298–302
- **Alghamdi, Emad A**, N. R. Aljohani, et. al. (2015). CrowdyQ: A virtual crowdsourcing platform for question items development in higher education. 17th International Conference on Information Integration and Web-Based Applications and Services, iiWAS2015-Proceedings

## VOLUNTEER

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**Founding Director** 2015 – 2016  
*Afaq Learning Hubs*

**President of the Saudi Student Club** 2012-2013  
*Missouri State University, MO, USA*

**English-Arabic Translator** 2012-2014  
*TED*

**Journal Reviewer**  
*Behavior Research Methods, Language Learning and Technology, Interactive Learning Environments, Sage Open*

## Skills

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**Natural Languages:** Arabic (Native), English (Fluent)

**Programming Languages:** Python, R, JavaScript

**Machine Learning, NLP, & CV:** TensorFlow, Keras, Scikit-learn, spaCy, OpenCV, NLTK

**Web and Desktop Technologies:** HTML, CSS, AWS, Vue, Electron, Django, Flask. Streamlit

**Statistics:** RStudio, SPSS