Huzama **Ahmad**

Ph.D. Researcher · Artificial Intelligence

Seoul, Rep. of KOREA

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"Be the change that you want to see in the world."

Education

KAIST(Korea Advanced Institute of Science & Technology)   *Seoul, S.Korea*
Ph.D. in Artificial Intelligence   *Aug. 2022 - Now*
- Advisor: Song Chong
- Co-Advisor: James Thorne

KAIST(Korea Advanced Institute of Science & Technology)   *Seoul, S.Korea*
M.S. in Artificial Intelligence   *Aug. 2021 - Aug. 2022*
- Advisor: Song Chong
- Co-Advisor: James Thorne

NUST(National University of Sciences & Technology)   *Islamabad, Pakistan*
B.E. in Computer Science and Engineering   *Sep. 2017 - July. 2021*
- Thesis: IoT-Based Intelligent Manufacturing Execution System with Predictive Analysis

Professional Experience

Korea Advanced Institute of Science & Technology   *Seoul, S.Korea*
AI Researcher   *Aug. 2021 - Now*
- Working as a server manager in xfact lab.
- Working in xfact lab on Large Language Models.
- Worked on Vision Language Navigation with Reinforcement Learning.

RiseTech   *Islamabad, Pakistan*
Research Intern   *Mar. 2021 - July 2021*
- Worked on spine segmentation with UNET for scoliosis diagnosis.
- Worked on CXR abnormality diagnosis using VilBERT.

RiseTech   *Islamabad, Pakistan*
Web Developer   *Sep. 2019 - Oct. 2019*
- Contributed to developing an Angular-based website.

microTech Services(Pvt) Ltd   *Islamabad, Pakistan*
Android App developer   *July. 2019 - Sep. 2019*
- Contributed to developing an Android-based application, "Amber Chat," for a secure communication.

EME Centre of Innovation & Entrepreneurship   *Islamabad, Pakistan*
Embedded System Engineer   *Oct. 2018 - Dec. 2018*
- Worked on a Real-time operating system for a microcontroller for low-latency applications.

Publications

Under Review

STEPER: Self-Tuning by Exploring and Pruning for Explanatory Reasoning in Large Language Models. EMNLP, 2023
Jiwoo Hong, **Huzama Ahmad**, Minsu Kim, James Thorne

- TL;DR: We developed a self-tuning method that uses Reinforcement Learning to improve the reasoning abilities of Instruction-Tuned Language Models.

- Keywords: Large Language Models, Reinforcement Learning, Self-Supervision, Reasoning

Teaching Assistant

Fall 2023 **AI605: Deep Learning for Natural Language Processing**, Teaching Assistant   *KAIST AI*

Honors & Awards

AWARDS

2018	**Commandant Gold Medal of Excellence**, National University of Sciences and Technology	*Isb., Pakistan*
2017	**Commandant Silver Medal of Excellence**, National University of Sciences and Technology	*Isb., Pakistan*

SCHOLARSHIPS

2021	**Fully funded Ph.D. Program**, Korea Advanced Institute of Science & Technology	*S. Korea*
2020	**Merit Based Scholarship**, National University of Sciences and Technology	*Pakistan*
2019	**Merit Based Scholarship**, National University of Sciences and Technology	*Pakistan*
2018	**Merit Based Scholarship**, National University of Sciences and Technology	*Pakistan*

Miscellaneous

SKILLS

Mathematical Background	Probability and Statistics, Linear Algebra, Multivariate Calculus, Complex Variables & Transforms, Ordinary Differential Equation, Numerical Methods
Soft Skills	Analytical problem solving, Critical thinking, Team work
Programming	Python, C++, Assembly, LaTeX, Matlab
Languages	English, Urdu

CERTIFICATES

Jan. 2023	**Specialization: Natural Language Processing**, DeepLearning.AI	*Coursera*
Sep. 2022	**Specialization: Reinforcement Learning**, University of Alberta	*Coursera*
Oct. 2021	**Specialization: Deep Learning**, DeepLearning.AI	*Coursera*
Oct. 2021	**Specialization: Mathematics for Machine Learning**, Imperial College London	*Coursera*