

# Pooyan Rahmanzadehgervi

Computer Science Ph.D. Fellow

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🐙 @pooyanrg ◇ [in](#) Profile

**Biography:** Pooyan is a Ph.D. candidate at Auburn University, AL, USA, advised by [Anh Nguyen](#). He has been awarded the prestigious Charles Gavin Research Fellowship for his Ph.D. studies. Previously, he completed his M.S. in 2021 at the Ferdowsi University of Mashhad, working with [Ahad Harati](#) and [S.K. Ghiasi-Shirazi](#). His research focus is Deep Learning and Explainable AI, specifically understanding and improving Vision Language Models. The results of his research have also been covered by many media outlets, including [TechCrunch](#) and [ars Technica](#).

## EDUCATION

<b>Auburn University</b> , AL, USA	2022 - Present
Ph.D. in Computer Science	Advisor: <a href="#">Anh Nguyen</a>
Thesis: <i>Towards An Explainable and Editable Attention Bottleneck for Vision Language Models</i>	
<b>Ferdowsi University of Mashhad</b> , Mashhad, Iran	2017 - 2021
M.S. Artificial Intelligence and Robotics	Advisors: <a href="#">Ahad Harati</a> and <a href="#">S.K. Ghiasi-Shirazi</a>
Thesis: <i>Autonomous Quadrotor Navigation using End-to-End Deep Reinforcement Learning</i>	
<b>Ferdowsi University of Mashhad</b> , Mashhad, Iran	2012 - 2017
B.S. in Computer Engineering — Software	Advisor: <a href="#">S.K. Ghiasi-Shirazi</a>
Thesis: <i>Training a Two-layer Feed-Forward Perceptron to Obtain a Reliable Initialization for an RBF Network</i>	

## WORK EXPERIENCE

<b>ATN's AI Lab</b>	Aug 2022 - Present
<i>Research Assistant</i>	Auburn, AL
<b>Auburn University</b>	Aug 2022 - Present
<i>Teaching Assistant</i>	Auburn, AL
<b>Polaris LTD</b>	Sep 2021 - Apr 2022
<i>Machine Learning Engineer</i>	Mashhad, Iran
<b>Computational Cognitive Science Lab (CCL)</b>	Sep 2017 - Sep 2021
<i>Research Assistant</i>	Mashhad, Iran
<b>Ferdowsi University of Mashhad</b>	Sep 2017 - Sep 2021
<i>Teaching Assistant</i>	Mashhad, Iran
<b>Mazandaran Telecommunication Company</b>	Jun 2015 - Sep 2015
<i>Software Engineering Intern</i>	Babol, Iran
<b>Independent Computational Programming</b>	Aug 2013 - Sep 2020
<i>Developer</i>	Mashhad, Iran

## PUBLICATIONS

Full list of publications: [📄 Scholar profile](#)

### Conference papers

- C1. [Rahmanzadehgervi, P., Nguyen, H.H., Liu, R., Mai, L., Nguyen, A.T., 2024.](#) TAB: Transformer Attention Bottlenecks enable User Intervention and Debugging in Vision-Language Models. arXiv preprint arXiv:2412.18675.

- C2. [Rahmanzadehgervi, P., Bolton, L., Taesiri, M.R., Nguyen, A.T., 2024.](#) Vision language models are blind. *In Proceedings of the Asian Conference on Computer Vision*. **Oral** presentation (5.6% acceptance rate).
- C3. [Nguyen, H.H., Rahmanzadehgervi, P., Mai, L., Nguyen, A.T., 2025.](#) Improving zero-shot object-level change detection by incorporating visual correspondence. *In 2025 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*.
- C4. [Rahmanzadehgervi, P., Harati, A. and Ghiasi-Shirazi, S.K., 2021.](#) Vision-based obstacle avoidance in drone navigation using deep reinforcement learning. *In 2021 11th International Conference on Computer Engineering and Knowledge (ICCKE)*. **Oral** presentation and **Best Paper Award**.

## ACHIEVEMENTS & FELLOWSHIPS

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- 2022: [Charles E. Gavin Research Fellowship](#)
- 2011: National Olympiad of Physics - High School level - 1st round
- 2008 - 2012: National Organization for Exceptional Talents ([NODET](#)) (High School -  $\leq 2\%$  acceptance rate)
- 2005 - 2008: National Organization for Exceptional Talents ([NODET](#)) (Middle School - 2% acceptance rate)

## PRESS COVERAGE

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- 2024: **TechCrunch**. [Are ‘visual’ AI models actually blind?](#).
- 2024: **Tech Xplore**. [Visual abilities of language models found to be lacking depth.](#)
- 2024: **ars Technica**. [Can you do better than top-level AI models on these basic vision tests?](#)
- 2024: **TechSPOT**. [Study shows the best visual learning models fail at very basic visual identification tests.](#)
- 2024: **News Bytes**. [Whatever be the claims, AI models can NOT actually see.](#)

## SERVICES AND ACTIVITIES

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### Reviewing

- Conference papers: IEEE ICCKE 2019, IEEE ICCKE 2023, CVPR 2025

### Others

- 2022: [K6-AI Club Instructor](#)
- 2012 - 2016: Member of the Scientific Society of Computer Engineering Students (SSCES) at Ferdowsi University of Mashhad, Iran.

## LANGUAGES

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Farsi (Persian)	Native speaker
English	Fluent

## REFERENCES

More available upon requests

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<b>Dr. Anh Nguyen:</b> Associate Professor, Auburn University	<a href="mailto:anhnguyen@auburn.edu">anhnguyen at auburn.edu</a>
<b>Dr. Ahad Harati:</b> Associate Professor, Ferdowsi University of Mashhad,	<a href="mailto:a.harati@um.ac.ir">a.harati at um.ac.ir</a>
<b>Dr. Sayed Kamaledin Ghiasi-Shirazi:</b> Associate Professor, Ferdowsi University of Mashhad	<a href="mailto:k.ghiasi@um.ac.ir">k.ghiasi at um.ac.ir</a>