Bahar Amirian Varnousefaderani

Seoul, South Korea | bahar.am.va@gmail.com | (+82) 010-2185-3617
linkedin.com/in/baharamirianv | baharav.github.io | github.com/BaharAV

Education

Kyungpook National University, Daegu, South Korea — Sept 2023 – Aug 2025
MS in Computer Science and Engineering

- CGPA: 4.3/4.3
- Funded by the Global Korea Scholarship (GKS-G 2022)
- Relevant coursework: Machine Learning, Pattern Recognition, Artificial Intelligence Applications

Chungnam National University, Daejeon, South Korea — Sept 2022 – Sept 2023
Korean Language Program (Level 4 to 7 (last))

- Funded by the Global Korea Scholarship (GKS-G 2022)

Shahid Beheshti University, Tehran, Iran
Some MS Courses in Computer Engineering (Artificial Intelligence and Robotics) — Sept 2021 – July 2022

- CGPA: 18.43/20
- Funded by the Government of Iran (Direct Entry through the Exceptional Talent Quota)
- Relevant coursework: Natural Language Processing, Image Processing, Computer Vision, Deep Learning

Shahid Beheshti University, Tehran, Iran
BS in Computer Engineering — Sept 2017 – July 2021

- CGPA: 18.3/20
- Funded by the Government of Iran (Top 1% in Nationwide University Entrance Exam)
- Relevant coursework: Fundamentals of {Computer Vision, Computational Intelligence, Data Mining}, Artificial Intelligence and Expert Systems, Databases, Data Structures, Principles of Algorithms, Engineering Mathematics

Experience

AI Engineer — Sep 2025 – Present
Samsung E&A, Seoul, South Korea

Graduate Student Researcher — Sept 2023 – June 2025
Multimedia Information Processing Laboratory of Kyungpook National University, Daegu, South Korea

- Under the supervision of Prof. Jeonghong Kim
- Leading academic and industrial projects across various aspects of AI.

Graduate Teaching Assistant — Sept 2023 – June 2025
Kyungpook National University, Daegu, South Korea

- Course: Data Structure
- Guiding classes of 30+ students and assisting in grading assignments and exams, mentoring students, and class management.

BS Thesis and Junior Graduate Student Researcher — Jan 2021 – July 2022
Shahid Beheshti University, Tehran, Iran

- Under the supervision of Prof. Mohsen Ebrahimi Moghaddam
- BS Thesis: Design and Implementation of an AI-Powered Image Description System for Mobile Devices
- Developed foundational research skills in computer vision and natural language processing through work on image captioning-related projects.
- Gained hands-on experience with deep learning frameworks and model evaluation, in addition to the design and development of web-based Android applications for deploying AI models.

Teaching Assistant — Sept 2018 – July 2021
Shahid Beheshti University, Tehran, Iran

- Courses: Fundamentals of Computer Vision, Fundamentals of Cryptography, Technical Language (English for Computer Engineering), Advanced Computer Programming, and Fundamentals of Computer and Programming
- Guided classes of 30+ students and assisted in conducting workshops and extra classes, preparing and grading assignments, course projects, and exams, developing test cases for automatic grading, and providing feedback.

Software Engineering Assistant — Aug 2018 – July 2021
Faraz Pardaz Tehran, Tehran, Iran

- Engaged in financial and administrative system design, development, analysis, and support procedures while practicing communication, teamwork, and problem-solving to tackle the intrinsic challenges of small-scale tech businesses.

Programmer (Java/XML) and Mentor — Aug 2020 - May 2021
Data Science Laboratory of Shahid Beheshti University, Tehran, Iran

- Contributed to a startup project as a programmer, responsible for developing more than five mini-applications, conducting peer-testing, documenting processes in various forms such as a wiki, and updating codes following system updates.
- Guided a class of 50+ students in designing, implementing, and presenting multiple industry-level projects on behalf of the Data Science Laboratory while providing documentation, facilitation, and supplementary instructions.

Research Output

★ A Modular Framework for Visual Emotion Analysis and Captioning with Psychological Insights — 2025

- Master's thesis
- Involves API usage, prompt engineering, dataset creation, fine-tuning, etc.

✔ A Hybrid Unsupervised-Weakly Supervised Method for Video Anomaly Detection — Sep 2025

- Rakhmonov Akhrorjon, Bahar Amirian Varnousefaderani, Jeonghong Kim
- Pattern Analysis and Applications (Springer, SCIE)

★ Enforced Clustering for Zero-to-One-Shot Texture Anomaly Detection — March 2025

- Bahar Amirian Varnousefaderani, Rakhmonov Akhrorjon, Jae-Soo Kim, Jeonghong Kim
- Machine Vision and Applications (Springer, SCIE)

✔ Attention network with optional activation for unsupervised video anomaly detection — Oct 2024

- Rakhmonov Akhrorjon, Barathi Subramanian, Bahar Amirian Varnousefaderani, Jeonghong Kim
- ETRI Journal (Wiley, SCIE)

★ Conditioned-Guided Denoising Diffusion Model for Texture Anomaly Detection — Oct 2024

- Bahar Amirian Varnousefaderani, Rakhmonov Akhrorjon, Taehun Kim, Jeonghong Kim
- Presented at the Fall Conference of the Korean Society for Internet Information

✔ AED-Net: Attention-Based Detection Model for Disabled Signage Detection — July 2024

- Rakhmonov Akhrorjon, Barathi Subramanian, Bahar Amirian Varnousefaderani, Jeonghong Kim
- The Journal of Korean Institute of Communications and Information Sciences (SCOPUS)

★ Anomaly Detection and Localization with Synthesized Anomaly Features and Assisted MLP — Jan 2024

- Bahar Amirian Varnousefaderani, Barathi Subramanian, Rakhmonov Akhrorjon, Jeonghong Kim
- Presented at the 2024 Winter Conference of Society for Computational Design and Engineering
- Awarded as Best Student Papers

Additional Education

- Neural Networks and Deep Learning Course: Authorized by DeepLearning.AI and offered through Coursera
- IBM Data Science Professional Certificate: 8 Courses authorized by IBM and offered through Coursera
- Google UX Design Professional Certificate: 6 Courses authorized by Google and offered through Coursera
- Android Development Course: Authorized by Tehran University
- ReactJS: Authorized by Sharif University of Technology
- Front-End Web Development and Design: Authorized and offered by Maktabkhooneh

Skills

- Programming: Python (and its libraries for machine learning, deep learning, and data science), Web development (using HTML, CSS, JavaScript and ReactJS, Python and Flask), Java (Java SE and Android development), C/C++, SQL
- Tools: Jupyter Notebook, Visual Studio Code, JetBrains, Google Workspace, Microsoft Office, Git, Docker
- Languages: English (IELTS overall score 8: L8.5 R9 W7 S8 + TOEIC 985), Korean (TOPIK level 6 + completed KIIP + passed KIPRAT and KINAT), Persian (Native)