SATHIYAMOORTHI ARTHANARI.

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in Sathiyamoorthi Arthanari.

A Jeollabuk-do, Gunsan-si, Osikdo-dong.



Summary

Highly motivated and technically proficient full-stack developer with a strong foundation in both front-end and back-end development for creating dynamic, user-friendly web applications. Experienced in computer vision, specializing in object tracking, image processing, and 3D human pose estimation. Skilled in implementing advanced machine learning and deep learning techniques to solve complex challenges in the field of computer vision. Seeking a full-stack development or computer vision role where I can leverage my skills and experience to make impactful contributions to an innovative and collaborative team.

Education

2020 – 2025 MS+Ph.D., Department of Electronic and Information Engineering, Kunsan National University, Gunsan, South Korea (Pursuing).

Thesis title: Research on Visual Object Tracking & 3D Human Pose Estimation Using Advanced Deep Learning Techniques and Algorithms

2018 – 2020 MCA., Master of Computer Applications, Affiliated by Anna University, Tamil Nadu, India.

2015 – 2018 BCA., Bachelor of Computer Applications, Affiliated by Periyar University, Tamil Nadu, India.

Skills

Programming C, C++, Java, Python.

Full-Stack Development HTML, CSS, Bootstrap, JavaScript, JQuery, PHP.

Python Frameworks | Django, Flask

Databases | SQL, Mysql, SQLite.

Python Libraries NumPy, SciPy, Pandas, Matplotlib, Seaborn.

Soft Skills

- Teamwork and Collaboration
- Communication Skills
- Adaptability
- Problem Solving
- Self-motivated and Flexible

Certification

- C and C++ Programming.
- Java Programming.
- Basic of Accounts and Tally.
- MS-Office (MS-Word, MS-Excel, and MS-Powerpoint).
- I passed Level 1 of the TOPIK-1 exam in Korean.
- I have completed both the Lower and Higher typewriting exams in English.
 - Lower First Class with Distinction
 - Higher First Class
- I have completed both the Lower and Higher typewriting exams in Tamil. (Native Language).
 - Lower First Class
 - Higher Second Class

Professional Experience

Aug-2018 - Aug-2020

- IT developer (Part-Time Job), Tutor Joes, Tamil Nadu, India.
 - Experienced in programming languages (C, C++, Java, Python)
 - Familiar with Python frameworks (Flask and Django)
 - Proficient in full-stack development (HTML, CSS, Bootstrap, JavaScript, Jquery, and PHP)
 - Skilled in database management (SQL, SQLite, and MySQL)
 - Expertise in developing projects in full-stack development.

Project Experience

Computer Vision

July-2023 - Feb-2025

- Development of 3D Human Pose Estimation using Transformer and Graph Neural Network Techniques.
 - Specialized in transformers and graph neural networks techniques.
 - Proficient in 3D human pose estimation filed.
 - Achieved optimal results in 3D human pose estimation.

Oct-2020 - June-2023

- Development of Visual Object Tracking and Detection using Machine Learning and Deep Learning Techniques.
 - Experienced in machine learning and deep learning techniques.
 - Specialized in video object tracking.
 - Proficient in deep feature extraction (VGGNet, ResNet Models, ext.)
 - Extensive knowledge acquired from Python, Tensorflow, PyTorch.
 - Proficient in software tools (MATLAB, Jupyter Notebook, Google Colab).

Web Applications

Jan-2020 - Mar-2020

- Developed an E-Commerce Management System and Advanced Job Searching Portal Projects using Full-Stack Development Technologies.
 - Front-End Development: Enhanced skills in HTML, CSS, JavaScript, JQuery, and frameworks like Bootstrap to create responsive, user-friendly interfaces.
 - **Back-End Development**: Gained experience in building and managing serverside logic using PHP, creating efficient and secure back-end functionality.
 - Database Management: Improved proficiency in SQL and MySQL, designing and managing databases.

Research Publications

Journal Articles

- S. Arthanari, D. Elayaperumal, and Y. H. Joo, "Learning temporal regularized spatial-aware deep correlation filter tracking via adaptive channel selection," *Neural Networks*, (Under Review) (Impact Factor 7.8).
- S. Arthanari, J. H. Jeong, and Y. H. Joo, "Adaptive spatially regularized target attribute-aware background suppressed deep correlation filter for object tracking," Signal Processing: Image Communication, (Submitted) (Impact Factor 3.4).
- S. Arthanari, J. H. Jeong, and Y. H. Joo, "Exploiting multi-transformer encoder with multiple-hypothesis aggregation for 3d human pose estimation," *Multimedia Tools and Applications*, (Published) (Impact Factor 3.0).
- S. Arthanari, J. H. Jeong, and Y. H. Joo, "Exploring multi-level transformers with feature frame padding network for 3d human pose estimation," *Multimedia Systems*, (Published) (Impact Factor 3.5).
- S. Arthanari, J. H. Jeong, and Y. H. Joo, "Learning multi-regularized mutation-aware correlation filter for object tracking via an adaptive hybrid model," *Neural Networks*, (Under Review) (Impact Factor 7.8).
- S. Arthanari and Y. H. Joo, "Memory sampled-data control for t-s fuzzy-based permanent magnet synchronous generator via an improved looped functional," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 53, no. 7, pp. 4417–4428, 2023 (Published) (Impact Factor 8.6).

Conference Proceedings

S. Arthanari, D. Elayaperumal, Y. H. Joo, and Y. M. Koo, "Learning temporal regularized spatial-aware correlation filter for visual object tracking," in *Korean Society of Electronic Engineers conference* (Conference proceedings), DBpia, 2022, pp. 120–121.

References

Prof.Jae Hoon Jeong,

Professor,

Dept. of Electronic & Information Engineering, Kunsan National University, Gunsan, South Korea.

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