

# SATHIYAMOORTHY ARTHANARI.

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🌐 Portfolio



## 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, Advanced Java (Netbeans), Python, Tkinter. |
| Full-Stack Development      | HTML, CSS, Bootstrap, JavaScript, JQuery, PHP.           |
| Python Frameworks           | Django, Flask  |
| Databases                   | SQL, MySQL, SQLite.                                      |
| Python Libraries            | NumPy, SciPy, Pandas, Matplotlib, Seaborn.               |
| Machine Learning Frameworks | TensorFlow, PyTorch, Keras, Scikit-Learn, OpenCV.        |

## Certification

- C and C++ Programming.
- Java Programming.
- Full-Stack Development
  - Front-End** : HTML, CSS, Bootstrap, JavaScript, JQuery, Ajax.
  - Back-End** : PHP & Django.
  - Database** : MySQL.
- 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.

## Certification (continued)

- 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 (Doctoral Course - Ph.D.) .**
    - *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 (Doctoral Course - Ph.D.).**
    - *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 server-side logic using PHP, creating efficient and secure back-end functionality.*
    - **Database Management** : *Improved proficiency in SQL and MySQL, designing and managing databases.*
    - **Deployment and Hosting**: *I gained experience in deploying applications to a web server and managing the hosting environment to make projects accessible to the public.*

## Soft Skills

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

## Personal Information

- Date of Birth : 1997-10-13
- Language-Known : **Tamil-Native, English, Korean** (TOPIK-Level-1 Pass)
- Marital Status : Unmarried
- Nationality : India

## Research Publications

### Journal Articles

- 1 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)**.
- 2 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*, **(Under Review) (Impact Factor - 3.4)**.
- 3 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)**.
- 4 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)**.
- 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)**.
- 6 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

- 1 S. S. KS, S. Arthanari, J. H. Jeong, and Y. H. Joo, "An efficient object tracking approach in siamese networks using multi-feature fusion," 2024, pp. 117–118.
- 2 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.