

Shounak Shastri

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EXPERIENCE

• KamerAI Pvt. Ltd.

Chennai, TN, IN

Sr. Software Engineer (3 years)

May. 2021 – Present

- Create pipelines for Data Annotation, Data Cleaning and Training Computer Vision models for Activity Recognition, Object Detection and Classification applications.
- Communicate and coordinate the Data Science and Machine Learning efforts between the client and the internal Data Science team to design and deploy a functioning data application.
- Mentor trainees and interns in Model training and testing pipelines.

• VIT–Vellore

Vellore, TN, IN

Teaching and Research Assistant (4 years)

Jan. 2016 – Jan. 2020

- **Teaching Assistant:** Taught courses on Communication, Networking and Image Processing. Was also involved in creating and assessing tests and assignments and co-ordinating revision sessions.
- **Research Assistant:** Research on Steganography algorithms for authentication. Published 5 academic papers in reputed peer-reviewed venues. Delivered talks on Data Security algorithms to an audience of over 60 undergraduate students arranged by the local IEEE Students Chapter. Served as a reviewer for major international conferences.
- **Mentoring:** Mentored more than 30 students in Computer Vision, Information Security, Machine Learning and Data Science to convert their projects into prototypes and publishable products.

PROJECTS

- **Barcode Detection:** Created the data processing pipeline and trained light weight models for detecting and decoding PDF417 codes. The models detected the codes irrespective of their orientation and were capable of running on CPU.
- **Face Recognition:** Collected Data and created a Data Cleaning and Annotation pipeline for recognizing faces in an industrial environment. Developed models using a novel loss function for detecting and recognizing faces of Indian and Asian origin with 99% accuracy.
- **KamerAI Safety Solution:** Worked as part of a team to develop Risk Detection, Object Monitoring and Compliance application for deployment at the client's warehouses and factories. Leveraged the client's established CCTV network to collect data for monitoring PPE and MHE compliance.
- **KamerAI Productivity Solution:** Owned the data science development for the KamerAI Productivity Solution for a major manufacturing client. Worked with the client and the KamerAI team to develop dashboards to give insights into the client's productivity and ergonomics data. Trained and deployed models at 5 manufacturing stages resulting in a 100% reduction of errors in one of the stages.

EDUCATION

• Vellore Institute of Technology

Vellore, TN, India

Doctorate (Ph.D.) in Steganography Algorithms

Jun.2015 – Dec. 2020

• Vellore Institute of Technology

Vellore, TN, India

Master of Technology (M.Tech.) in Communication Engineering

Jun.2013 – May. 2015

• K. J. Somaiya College of Engineering

Mumbai, MH, India

Bachelor of Engineering (B.E.) in Electronics Engineering

Aug. 2007 – July. 2012

SKILLS

- **Programming/Scripting Languages:** Python, R, Matlab
- **Technologies:** OpenCV, TensorFlow, Scipy, Scikit Learn, NLTK, Matplotlib, Trax

- **Research Awards:** Awarded for research work carried out on Steganography algorithms at VIT-Vellore.
- **Peer-reviewed Journal Publications:**
 - S.Shastri and V.Thanikaiselvan, Dual image reversible data hiding using trinary assignment and centre folding strategy with low distortion, J. Vis. Commun. Image Represent., vol. 61, May 2019. [Link](#)
 - V.Thanikaiselvan, S.Shastri, and S.Ahmad, Information hiding: Steganography, Stud. Comput. Intell., vol. 660, 2017. [Link](#)
 - S.Shastri and V.Thanikaiselvan, Dual Image Reversible Data Hiding Using Rhombus Prediction, in 2019 International Conference on Vision Towards Emerging Trends in Communication and Networking (ViTECoN), 2019. [Link](#)