Shounak Shastri

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EXPERIENCE

- **KamerAI Pvt. Ltd.** — Chennai, TN, IN
  Sr. Software Engineer (3+ years) — *May. 2021 – Present*
  - Built Proof Of Concepts and created data pipelines for computer vision applications in a fast paced environment.
  - Collaborated with internal engineering and product teams and while working closely with clients to create data driven insights.
  - Mentored 5+ trainees and interns in model training and testing pipelines.

- **VIT–Vellore** — Vellore, TN, IN
  Teaching and Research Assistant (4 years) — *Jan. 2016 – Jan. 2020*
  - Taught courses to classes of over 60 students and assisted the professors in devising practical experiments, tests and revision sessions.
  - Researched Steganography algorithms for secure communication. Credited with 6 publications in reputed peer-reviewed venues.
  - Mentored over 30 undergraduate students 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 runnning 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
- Experience using Linux and familiarty with AWS compute and storage products.

Awards and Publications

- **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