ASHWIN SAKHARE

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SUMMARY

Machine Learning engineer and consultant with 5+ years of experience bridging applied research and product deployment. Skilled in training, fine-tuning, and applying deep learning and foundation models. Proven ability to translate ambiguous problem statements into clear technical roadmaps, leading small teams and communicating complex results to diverse technical and non-technical audiences.

TECHNICAL SKILLS

Computer Vision	SfM, 3D Reconstruction, Gaussian Splatting, Camera Calibration, Object Detection, Segmentation, Tracking, Visual SLAM, U-Net, YOLO, CLIP
Programming	Python, PyTorch, C#, SQL
Edge / Quantization	Jetson Orin, TensorRT, ONNX, NVIDIA Stack
MLOps	Docker, Git, Conda, DVC

EXPERIENCE

Principal Data Scientist – Computer Vision Feb 2022 – Present
Atos zData — Newark, DE (Remote)

- Led small cross-functional teams (2-3 people) on client projects, managing the full ML lifecycle from scoping and data strategy to model development, deployment, and client delivery.
- Translated ambiguous business needs into clear technical roadmaps, managing scope, timelines, and deliverables.
- Acted as the primary client point of contact, presenting complex ML results to C-level executives, technical teams, and non-technical stakeholders.
- Developed custom 2D/3D foundation models for security, biotech, and retail applications.
- Built robust 3D scene understanding pipelines integrating SLAM, object tracking, and segmentation for multi-camera systems.
- Designed and delivered synthetic dataset pipelines to boost model generalization and reduce manual labeling effort.
- Developed lightweight, deployable inference systems using Docker, TensorRT, and ONNX for Jetson Orin edge devices.
- **Biotech:** Improved volumetric F1 score by 25% on sparse microscopy data by designing a custom 3D U-Net segmentation model.
- **Security:** Reduced real-time surveillance monitoring costs by $9K/month through precision-tuned custom object detectors.
- **Retail:** Built computer vision pipelines for product detection, recognition, and shelf localization to automate store compliance checks.

Associate Clinical Data Scientist Mar 2021 – Feb 2022
DeepHealth — Cambridge, MA

- Conducted statistical analysis for model validation to support FDA clearance of a deep learning-based radiology system.
- Automated monitoring dashboards to track performance drift and clinical impact in real-world settings.

Graduate Researcher / Research Engineer Aug 2015 – Mar 2021
USC / UCSD — Los Angeles, CA

- Led design and development of a VR-based cognitive exercise game deployed in a 2-year clinical trial.
- Communicated complex research findings to multidisciplinary teams, presenting to technical and non-technical audiences.
- Conducted multimodal neuroimaging analysis to investigate Alzheimer's disease progression.

EDUCATION

Ph.D., Biomedical Engineering University of Southern California
M.S., Biomedical Engineering University of Southern California
B.S., Biomedical Engineering North Carolina State University

RELEVANT PUBLICATIONS

Kim J.G., Haslam B., Diab A.R., **Sakhare A.**, Grisot G., Lee H., Holt J., Lee C.I., Lotter W., Sorensen A.G. (2024). *Impact of a Categorical AI System for Digital Breast Tomosynthesis on Breast Cancer Interpretation by Both General Radiologists and Breast Imaging Specialists.* **Radiology: Artificial Intelligence**.