DIPAK SAIRAMESH

San Francisco, CA • (857) 308-8338 • dipak.sairamesh@gmail.com • LinkedIn • Website

EDUCATION

NORTHEASTERN UNIVERSITY   Boston, USA
Master of Science, Artificial Intelligence and Robotics   Dec 2023
- **Leadership Development**: LEAD360, Graduate Leadership Institute (Level 2 Badge)
- **Teaching Assistant**: Khoury College of Computer Science, CS5340: Computer/Human Interaction
- **Relevant Coursework**: Reinforcement Learning, Computer Vision, Fundamentals of A.I., Control Systems

PES UNIVERSITY   Bangalore, India
Bachelor of Technology, Mechanical Engineering with specialization in Automotive Engineering   May 2018
- **Honors**: First Class with Distinction Recipient

SKILLS

- **Languages**: Python, C++, MATLAB, Arduino, Java, JavaScript, React, HTML, CSS
- **Libraries**: numpy, matplotlib, pandas, sk-learn, sk-image, OpenCV, Pillow, YOLO
- **Frameworks**: PyTorch, TensorFlow, Keras, Hugging Face, Jupyter, CUDA, ROS
- **Technologies**: NLP, LLMs, Gen AI, GPT, Copilot, Postman, GitHub, JIRA, ANSYS
- **DevOps/Cloud**: Jenkins, AWS, Docker, Azure, VMWare, Hyper-V, Google Colab
- **Data Analytics**: SQL, Tableau, PowerBI, Excel, Visio, Grafana, Kibana, QuickSight
- **Design**: Adobe Creative, Figma, SOLIDWORKS, AutoCAD, Fusion360, 3D Printing

PROFESSIONAL EXPERIENCE

NORTHEASTERN UNIVERSITY   Boston, USA
Makerspace Specialist (Project Management) - College of Arts, Media, and Design   Jan 2023 – Jun 2023
- Delivered technical training to 200+ students/faculty, elevating advanced machinery and **CAD/CAM** aptitude
- Enhanced prototyping efficiency by 25% via optimizing **laser** cutting, **3D** printing, and **CNC** routing methods
- Directed the incubation of a new **Creative Technology Lab**, increasing academic workspace capacity by 300%

ARUBA NETWORKS – HEWLETT PACKARD ENTERPRISE   Bangalore, India
Customer Advocacy Engineer (Software Engineering) - High-Touch Services   Feb 2019 – Jul 2021
- Achieved 25% faster migration of devices with zero downtime through **RESTful API** driven validation scripts
- Configured and deployed a 7-node **Aruba Central on Premises** solution architecture on HP DL360 Gen 10 server, simulating 25,000 devices and enabling seamless network upgrades
- Collaborated with **cross-functional** teams to deliver customer-centric solutions, boosting issue resolution efficiency by 33% while utilizing agile **CI/CD** practices across front end, backend, and testing
- Created interactive dashboards using **Tableau Server** for **time-series analysis** through **real-time data acquisition** from different sources, improving network insights and security by 75%
- Streamlined **KPI** monitoring and standardization with **Grafana**, **Kibana**, and **AWS Elasticsearch** for **data modeling** and **statistical visualization,** resulting in a 25% increase in operational efficiency
- Implemented root cause analytics of **UXI** sensors with threshold-based reporting using **SNOW/Webhooks** integrations, resolving 85% of critical system issues along with **UI/UX** optimization
- Managed a team of 10 across 3 locations (India, USA, Australia) in global **spectrum analysis**, automating workflows that saved 20+ hours weekly and improving resource utilization by 50%

PROJECTS

Crater Observing Bio-Inspired Rolling Articulator (COBRA) | **CNN, Label Studio, OpenVino, TensorRT**
- Introduced **image processing** and **path planning** through Intel RealSense, Nvidia Jetson Orin, and Raspberry Pi with a comprehensive head redesign, achieving over 75% **mIoU** scores for ground truth and object segmentation

Autonomous Mobile Robot, (TurtleBot3) | **ROS, Gmapping, Cartographer, Gazebo, Rviz**
- Accomplished a 95% detection rate of '36h11' AprilTags in simulated disaster environments using **SLAM**

Machine Learning and Deep Learning in Sudoku | Monte Carlo Tree Search, Deep Q-Networks
- Improved solver efficiency by 25% through **reinforcement learning** and sequential decision-making **algorithms**

Creative A.I. | VAEs, GANs, Stable Diffusion, Midjourney, Adobe Firefly, DALL-E, Gradio
- Leveraged **LLMs** and **Natural Language Processing** for **prompt engineering** specific to diffusion processes employing **generative AI** for content creation and personalization, reducing overall workflow time by 80%