

Sougato Bagchi

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Objective

Seeking a full-time entry-level software engineering job in a fast-paced organization where I can apply my skills in computer vision and machine learning to solve novel and interesting problems.

Skills, Abilities & Certifications

- Programming Language: Python, C++, MATLAB
- Frameworks: Robot Operating System (ROS), PyTorch, scikit-learn, TensorFlow/Trax
- Hardware: RGB Camera, IMU, LiDAR
- OS: Linux, Windows
- Certifications: [Financial Markets - Coursera](#)

Experience

Research Assistant | University at Buffalo | Buffalo, NY

Feb 2022-Aug 2023

- Image Enhancement of noisy-low-light images using Enhanced Super Resolution Generative Adversarial Network (ESRGAN) for surveillance, autonomous robot navigation which are trained on reflectance and illumination properties. Check my dissertation on [ProQuest](#).
- Augmented a simple order-driven robot with sensory capabilities and reactions, such as Feedback Learning, Natural Language Processing and Audio-Visual Recognition. Check our project on [GitHub](#).
- Graded and assisted students on "Robot Operating System (ROS)", "probabilistic localization of robots" and "Linux intro" projects for the course of CSE 468/568: Robotics Algorithms.
- Performance Evaluation of Kalman-Filter based Simultaneous Localization & Mapping (SLAM) systems like OpenVINS in terms of Absolute Trajectory Error (ATE). Check my [white paper report](#).
- Data collection of Dorsal Hand Images using infrared illumination and Neural Nets trained on the collected Dorsal Vein patterns for using it as biometrics. Check our [IEEE publication](#).

Machine Learning Engineer, Intern | COZEVA | Fremont, CA

Jun 2022-Aug 2022

- Used python/scikit-learn to process large data sets of US patient medical information while operating under "HIPAA" privacy rule.
- Identified relevant features in health data for machine learning applications using Associative Rule Mining.
- Co-developed ML models to identify the correlation between social demographics and medical care gaps.

Salesforce Developer | Tata Consultancy Services | Kolkata, India

May 2019-Nov 2020

- Collaborated in a cross-functional team of approximately 50 people actively engaging in client interfacing, conducting requirement analysis, and contributing to full stack development on Salesforce Lightning-based webpages using SQL and Apex programming languages.
- Data Visualization and Analysis using Salesforce Einstein and MS Excel.

Education

University at Buffalo | Master of Science, Computer Science | Buffalo, NY | Major GPA: 3.5/4

Aug 2023

Specialization: Computer Vision for Robotics, Deep Learning in Image Processing

UEM Kolkata | Bachelor of Technology, Computer Science | Kolkata, India | Major GPA: 3.7/4

Apr 2019

Specialization: Machine Learning, Image Processing with some published research papers in Springer Oct 2018.

- [Predicting survivability of patients having Hepatocellular Carcinoma based classification model like K-nearest and DNN models](#)
- [Using regression models to predict rainfall vs Humidity, Temperature and other weather factors.](#)