


JAGROOP BUTTAR

 JAGROOP@BUTTAR.ME

 13435857848

 BRAMPTON, ON

 BUTTARME

SKILLS

- YOLO, PyTorch
- MvTec Halcon
- Cognex, Keyence
- Fanuc Robots
- Universal Robots
- Rockwell Studio 5000
- Omron Sysmac Studio
- Python, PHP, JS, Micro Python
- Software Development
- Windows
- Linux
- Jetson Nano & Orin
- Networking

EDUCATION

Centennial College
Toronto, ON (04/2018)

Associate of Science

IGNOU
Delhi, India (12/2014)

Bachelor of Science

WORK EXPERIENCE

ARM Technologies Inc. - Vision & AI Engineering Manager

Rosemont, ON (04/2025 - PRESENT)

- Overseeing all R&D initiatives in computer vision and AI, from concept through deployment, with full ownership of design, integration, and delivery
- Architecting and evolving a custom in-house AI pipeline for detection, segmentation, pose estimation, OBB, and stereo vision
- Guiding a cross-functional engineering team while actively contributing to model optimization, calibration systems, and real-time deployment
- Implementing embedded solutions on Jetson and CPU platforms, including robot and PLC communication via EtherNet/IP and TCP/IP
- Defining the technical roadmap for vision and AI, aligning R&D direction with business priorities and emerging technologies

Ascension Automation Solutions Ltd. - Research & Development Supervisor

Cambridge, ON (01/2024 - 04/2025)

- Directed the full lifecycle of AI vision projects for industrial applications, including detection, tracking, and robotic guidance systems
- Engineered Python-based models and algorithms tailored for high-performance visual inspection and automation
- Coordinated dataset pipelines including acquisition, labeling, augmentation, and mask generation to support training workflows
- Deployed custom calibration and communication protocols between robots and PCs, using vector grid techniques and TCP/IP messaging
- Mentored engineers and shaped the R&D vision by introducing modern tools, best practices, and automation strategies

ARM Technologies Inc. - Controls Programmer & Vision Specialist

Rosemont, ON (04/2022 - 01/2024)

- Programmed and fine-tuned vision systems using Cognex, Keyence, and Omron hardware for precision inspection
- Built specialized machine vision tools with PyTorch and MvTec Halcon to enhance production quality and throughput
- Integrated HMI and PLC systems using FT View Studio, Rockwell Studio 5000, and Omron Sysmac Studio for seamless control
- Applied advanced robotic calibration using matrix transformations and custom vector grids for accurate hand-eye alignment

E. Hofmann Plastics Inc. - Automation Engineer

Orangeville, ON (06/2018 - 09/2021)

- Spearheaded automation upgrades and supported robotics deployment to enhance plant efficiency and safety
- Created tailored machine vision applications using MvTec Halcon and Python for inline defect detection
- Delivered SCADA and web-based HMI systems interfaced with PLCs, machine vision, and industrial Ethernet protocols
- Diagnosed and resolved complex issues across PLCs, software systems, and field devices
- Collaborated closely with maintenance and engineering to validate new systems and implement process improvements

Personal Projects

Gluonix Designer

Python-based Drag and Drop GUI Builder

- Designed and built a fully functional GUI designer in Python, enabling users to create interfaces visually using intuitive drag-and-drop interactions
- Automatically generates clean, executable Tkinter code, allowing developers to bypass manual coding and accelerate interface development
- Supports both personal and commercial use, offering a lightweight alternative to commercial GUI builders with complete code export
- Released as a standalone tool to simplify rapid GUI prototyping for Python desktop applications