⇑ Sagar Panchal

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About

Engineer with experience in Computers, Automation & Robotics.
Looking forwards towards a role that offers better Individual and Professional growth.

Education

Jan 2016-17	Master of Science, Electrical & Computer Engineering, *(3.41/4)*	
	New York University	
Jun 2010-14	Bachelor of Engineering, Instrumentation & Control, *(7.04/10)*	
	Gujarat Technological University	

Skills

Computer Programming:	Java(primary), C/C++, Git
	Desktop Applications (JavaFX, AWT), Web Applications (HTML, CSS, Javascript)
Industrial Automation:	Micro-controllers & Single Board Computers,
	PLCs(Ladder-Logic), HMI/SCADA

Work Experience

Automation Engineer   *Jan 2022 - Present*
Nor-Cal Controls, California

Software Engineer, Machine Automation   *Feb 2018 - Nov 2021*
Mini-Circuits, Inc., New York
• Primarily responsible for development and maintenance of Software for Robotics and Computer Vision Projects.
• Upgrading legacy Control Programs and rewrite them using new technology (mostly Java).
• Troubleshooting machine/automation/software issues related to production.
• Development and maintenance of the Website: https://www.minicircuits.com/
• Development and maintenance of Web/Desktop Applications to support Database Maintenance.
• **Universal Rotary Machine:**
• Integrated capabilities from different Machines into one to include more range of products to be tested.
• Successfully implemented Visual Inspection on the machine before packing the units.
• **Laser Measurement System for Mechanical Switches:**
• An R&D Project to verify dimensions of Various Switch bodies using a Laser Displacement Sensor.

Developer Intern   *Aug 2017 - Feb 2018*
Revmax Fleet Optimization, New York
• Developing Firmware for *SidewalkIQ* Sensor using Doppler Radar to monitor sidewalk activities.
• Successfully deployed sensors at various NYC locations.
• R&D to improve data consistency and efficiency of data storage/transfer to Server for further processing.

Instructor (ITEST Program)   *Sep - Dec 2017*
Robotics & Mechatronics Department, NYU, New York
• Mentor to Robotics Club Programming Team for Robotics competitions (First Robotics & Vex Robotics).
• Teaching concepts of Computer Programming to Robotics Club Team.

Lead Instructor (CrEST Program)   *May - Aug 2017*
Center for K12 STEM Education, NYU, New York
• Training High School Interns with Computer Programming (Arduino C), IoT, Robotics & 3D-Printing activities.
• **Autonomous Car (Mouse in a Maze) - STM32 Board:**   https://github.com/sap586/RTES$_{project}$
• **Wireless Robot Controller - Arduino:**   https://github.com/sap586/WirelessRobotDay5Activity

Design Engineer   *Jun 2014 - Jan 2016*
Prima Automation, Ahmedabad, India
• Embedded Software Development on PLCs, micro-controllers & Report Generation.
• Front-end (UX) design on HMI/SCADA for Industrial Automation applications.
• Troubleshooting and upgrading legacy Automation projects *(mostly on Siemens Systems)*.
• Electrical & Control Panel Layout for Industrial Automation and Robotics *(E-plan, AutoCAD)*.

Trainee Engineer   *Aug 2013 - May 2014*
Neoplast (I) Pvt. Ltd., Ahmedabad, India
• Embedded Software Development on Siemens PLC and Front-end (UX) Design on SCADA.