bhatt.amar.a@gmail.com
(315) 415-6131

AMAR BHATT

(U.S. Citizen)

linkedin.com/in/amarbhatt
amarbhatt.com

EXPERIENCE

Robotics Embedded Engineer – Surgical Robotic Platform Software and Controls *Aug 2017 – Present*
Stryker Robotics / Stryker Mako Davie, FL
- Designing software architecture to be implemented in robot quality/build/calibration software
- Developing robot system and component-level manufacturing and calibration software
- Creating embedded APIs to interface with various hardware, sensors, and motion controllers
- Implementing a variety of motion control algorithms in MATLAB and C
- Writing embedded control software for use in a surgical robotic solution

INTERNSHIPS/CO-OPs

Computer Engineering Intern *May 2016 – Aug 2016*
Stryker Mako Davie, FL
- Designed 3D mapping tool using computer vision.

Computer Engineering Intern *May 2015 – Aug 2015*
Stryker Instruments Kalamazoo, MI
- Created autoclave safe power adaptor circuit PCB
- Developed commutation circuit and software for motor

Software Engineering Co-op *Jan 2014 – July 2014*
Intuit San Diego, CA
- Built mobile responsive web apps and REST APIs
- Increased customer completion by 5%

NOTABLE PROJECTS

Thesis Research (Python) *Sept 2016 – June 2017*
Novel approach to learning tasks from raw image sequences using deep apprenticeship learning methods.

Myo Robotic Arm (Robot/C#/C) *Jan 2016 – Dec 2016*
Augmented control of a 5 DOF robotic arm using EMG.

Vision-Based Control (Robot/MATLAB) *Nov 2016*
Remote vision-based control system using OpenCV, allowing user drawn paths to navigate a wireless robot.

Milpet (Autonomous Wheelchair) *Sept 2014 – Oct 2016*
Autonomous wheelchair with robust embedded control and modular hardware I/O.

LEADERSHIP

Sigma Chi Ritual Peer *2018 – Present*
- Help local chapters achieve ritual excellence

RIT South Florida Alumni Volunteer *2018 – Present*
- Assist in event development and alumni engagement

Student Government Vice President *2016 – 2017*
- Represent the interests of the student body

Tearney's Martial Arts *1999 – 2010*
- Achieved rank of Shodan (1st degree) Black Belt

SKILLS

Languages: C, C++, MATLAB, Java, Python

Embedded: Embedded C/C++, Arduino, Bootloaders, ARM microcontrollers (TI, Freescale)

Robotics/ Controls: Motion Controllers, Serial Arm, Computer Vision, Actuator Characterization, System Calibration, System/Component Registration

Electronics: Digital Logic Design, PCB Layout

EDUCATION

Rochester Institute of Technology (RIT), *Rochester, NY* *Sept 2012 – Aug 2017*
Master of Science in Computer Engineering – (3.905/4.000)
Bachelor of Science in Computer Engineering, Minor in Economics – Summa Cum Laude (3.893/4.000)
Research: Machine Intelligence Lab *Thesis:* Teaching Agents with Deep Apprenticeship Learning

PUBLICATIONS

Teaching Agents with Deep Apprenticeship Learning, RIT MS Thesis *June 2017*

Milpet – The Self-Driving Wheelchair, Electronic Imaging - Autonomous Vehicles and Machines 2017 *Jan 2017*

Giving Independence Back to the Elderly and Physically Disabled, IEEE WNYISPW 2015 *Dec 2015*