1 Rhema Way
Coventry, RI 02816

EMANUELE RAGGI

eraggi@uri.edu
(401) 262-1821

EDUCATION

UNIVERSITY OF RHODE ISLAND, MS Ocean Engineering, Rhode Island, USA   **Jan. 2017 - Aug 2019**
POLYTECHNIC INSTITUTE, NYU (Dual Program), New York, USA   **Jan. 2011 - Oct. 2011**
UNIVERSITY of PERUGIA, MS Mechanical Engineering (Dual Program), Perugia, Italy   **Nov. 2008 - Oct. 2011**
UNIVERSITY of PERUGIA, BS Mechanical Engineering Perugia, Italy   **Sep. 2003 - Nov. 2008**

RELEVANT EXPERIENCE

Cashman Dredging and Marine Contracting, MA, USA   **Oct. 2019 - Aug. 2020**
Software Engineer - Open Source Software Division
- Responsible for all open source software development activities of the company
- Project planning and resource management activities
- Developed Lidar docking system using ROS/Qt5/C++/Velodyne for real time vessel's distance estimation
- Developed Vessel Tracing System GUI using HTML/CSS/JavaScript on a React framework for bidding procedure storing real time position of vessels on MongoDB database given specific API
- Developed a remote Raspberry Pi bypass GUI for rebooting/service/GPS troubleshooting in Qt5/C++/Putty
- Developed emergency geo-fence bypass GUI for dumping material using Qt5/QML/C++/AirLink RV50
- Developed technical specifications for projects with detailed software requirements
- Lead Kick-off meeting for software development
- Offshore software development activities, software deployment and validation
- Estimation and scope management activities

University of Rhode Island, Kingston, RI, USA   **Jan. 2017 - Aug. 2019**
MS Candidate - Graduate Research Assistant
- Program software using open source technology such as Linux devices on Ubuntu operative systems
- Coded of Graphic User Interfaces (GUI) for several projects such as: stereo imaging for investigation of fine-scale ecological zonation and related particle dynamics from stereo image data from research cruises
- Created a stereo image processing pipeline using open source computer vision library OpenCV interfaced with the IDE Qt5 and coded in C++. Integration platform is CMake
- Built an internal database using Qt5 and SQLite
- Developed a terrain-based particle/kalman filter for underwater localization using Qt5/ROS/Orocos-BFL
- Attended weekly lab meetings
- Wrote all training tutorials and maintain up to date documentation of our internal data tracking system
- Designed jacketing system for the Block Island Wind Farm and piezoelectric transducers using Abaqus

E/V Nautilus - *Loihi Seamount Expedition,* Honolulu, HI, USA   **Aug. 2018 - Sep. 2018**
Navigator and High Resolution Mapper
- Used Hypack for ROVs position tracking, establish mapping survey, way/point target documentation
- Monitored NavEst for precision navigation of ROVs Hercules and Argus
- Used NavG for pre-dive set-up
- Used Tracklink/USBLNAV to track position of ROVs when underwater
- Monitored Dynamic Positioning System (DPS) of the vessel
- Handled deck and bridge communication prior to and after ROVs deployment and recovery
- Created a Point-Cloud Visualizer using Qt5 and PCL library to show laser survey
- Used ROS for survey and high resolution mapping for Norbit and WASSP multibeam sonar

T&T Sistemi Automation S.r.l., Italy   **May 2014 - Jan. 2017**
Sales & Project Manager - Oil & Gas

- Planned activities and assigned personnel to projects in the Oil & Gas proposal department
- Wrote technical proposal bids for Oil & Gas and Renewable systems and subsystems
- Oversaw budget and expenditures of ongoing projects;
- Coordinated on a regular basis with customers and participated in program/kick off meetings
- Managed offshore activities and provided on-site supervision

T&T Sistemi Automation S.r.l., Italy   **Mar. 2012 - May 2014**
Proposal Sales Engineer - Intelligent Transportation Systems and Oil & Gas

- Wrote technical proposal bids regarding intelligent transportation systems and its subsystems
- Reviewed technical specification for a large spectrum of projects
- Prepared request for quotation for suppliers using matrix requisition extraction
- Managed Purchase Orders at all levels and conducted price negotiations
- Improved Quality Control operations and documentation for all internal processes
- Supported programming activities of electric panel systems (PLC) with Siemens, GE, Omron, ABB, Rockwell

Global Reporting Initiative (GRI), New York, NYC   **Jan. 2011 - Dec. 2011**
Business Analyst

- Monitored market trends and prepared briefing reports/presentations for all stakeholders
- Managed GRI stakeholder relationships and developed effective and efficient communications
- Won grant with the NGO The Conference Board to conduct a research project in the technology sector

Polytechnic Institute, New York University, New York, NY   **Jan. 2011 - Dec. 2011**
Visiting Research Scholar

- Teaching Assistantship position for the course "Sustainability in Urban Development"
- Organized class schedules, planned/conducted lectures, and graded assignments and test

RESEARCH & ENGINEERING SKILLS

- Programming languages: Matlab, Octave, C, C++, HTML, CSS, SQL, JavaScript
- Software: SQLite
- Libraries: OpenCV, pcl, Orocos-BFL
- Frameworks: Visual Studio, Qt5, Code::Blocks, CMake, Robot Operating System (ROS), React
- Cloud Systems: PHPMyAdmin, Cloud9
- Repositories: Git and GitHub, Bitbucket
- Database: MongoDB
- Operating Systems: Windows 2000, 2003, 2008, 20012, XP, 7, 8, 8.2, 10, Linux (Ubuntu, XUbuntu, Mate)
- Designed cranes and gantry cranes and performed Finite Element Analysis
- Simulation software: SolidWorks, Abaqus, Solid Edge

CODING REPOSITORIES ADDRESS

- https://bitbucket.org/ERaggi

LANGUAGES

- Native Italian speaker;
- Professional working knowledge of English language;
- Good working knowledge of French language;
- Basic working knowledge of Spanish language;