Sergey Chechkin

Senior Software Engineer / Robotics Perception Engineer

Jupiter, FL   (561)-542-9364   sergeychechkin@gmail.com

Summary

Software engineer with more than fifteen years of experience in software development, R&D. Last ten years in robotics perception, computer vision, sensors calibration, localization, mapping algorithms, multi-view stereo, image processing, 3D modeling, 2D / 3D graphics, non-linear optimization, parallel computation, real time algorithms development, data-structure for big data, sensor drivers, GUI.
I am passionate about inventions and innovations and strive to bring high-quality technical solutions.

Experience

EXYN TECHNOLOGIES - Philadelphia, PA (remote): 2020 – 2023.
Senior Software Engineer / Robotics Perception Engineer.
- Sensors calibration production process: camera, lidar.
- Real time algorithms: LIDAR slam. Visual odometry with self calibration.
- Large data structures and algorithms: 3D point cloud post-processing: colorization, normal computation, smoothing, non-static object removal, mesh generation, mesh texture generation.
- Stack: C/C++, Python, Git, OpenCV, PCL, OpenCL, OpenGL, Eigen, Ceres, Qt.

PARACOSM.IO - Gainesville, FL (remote): 2013 – 2020.
Senior Software Engineer / Robotics Perception Engineer.
- Sensors calibration production process: camera, lidar, IMU.
- Real time algorithms: VIO, Lidar internal odometry and SLAM. Spline odometry, Sensor fusion.
- Stack: C/C++, Git, ROS, OpenCV, PCL, Eigen, Ceres, Boost.

INNOVATIVE AMERICAN TECHNOLOGY, INC – Deerfield Beach, FL: 2007 – 2013.
Senior software engineer, Project manager.
- Designed several radiation detection and identification systems.
- Designed gamma and neutron detectors and implemented a full production process.
- Implemented isotope identification algorithm (machine learning, neural network).
- Implemented distributed computation framework over TCP/IP.
- Implemented digital signal processing algorithms (Altera NIOS II FPGA processor, Vhdl)
- Stack: C/C++, C#, MySQL, Vhdl.

Education

MS in computer science and system engineering.
PERM STATE TECHNICAL UNIVERSITY – Perm, Russia.