Archit Shah

EXPERIENCE

Bloomberg LP *(Python, JavaScript, React, Django, Git Version Control, MySQL)* — New York, NY
Employer Name: Zioqu, Inc. — Jan 22- Present
Employer Name: Boto3, Inc. — Aug- 20- Jan 22
Full Stack Python Developer — Aug 20 - Present
- Developed and maintained Dashboard type Web-application that track events from various intelligence sources and scan results which is used to identify, monitor and report Security vulnerabilities in the systems and software that runs in the Network Infrastructure
- Wrote various Automated Scripts in Python to Ingest the Intelligence data in our database
- Performed Testing and wrote unit tests on various Django applications.
- Developed and maintained User Interface using React JS, CSS and HTML.

Veracity Software Inc. *(ROS, SLAM, Python, C++, Open CV, Keras, Git Version Control)* — Woodbridge, NJ
Data Analyst — Feb 20 – June 20
- Data Acquisition using ROS and Labview, interpreting data, analysing results using statistical techniques and providing reports of his findings to the team.
- Inspecting sensor data, applying Probabilistic and Statistical techniques to real data, maintaining data set and performing visualization

Infinite Options *(ROS, SLAM, Python, C++, Open CV, Keras, Git Version Control)* — San Jose, CA
Robotics / Computer Vision Engineer — Dec 18 – Sept 19
- Building an Indoor autonomous robot prototype using ROS that can navigate in an unknown environment and shoot live videos
- Integrated hardware to get autonomy and control stack running on the robot prototype
- Built & trained a Notes Classifier using Convolutional Neural Network (CNN) in python that can classify & file handwritten notes
- Established and maintained relationships with collaborating hardware suppliers to meet project goals

Skycart *(Python, ROS, Matlab, Simulink, Gazebo, Data-driven control system)* — San Jose, CA
Robotics Engineer — August 18 – Dec 18
- Performed simulation of Model Free Adaptive Controller (MFAC) for discrete Non-Linear systems using python and compared its performance with conventional PID controller.
- Designed & simulated a Model Free Adaptive Control algorithm in Simulink for precision landing of a Hexacopter
- Implemented SITL (Software in the loop) using ROS (Robot Operating System) for precision landing of a Hexacopter

Vinay Wire Products *(C++, Solidworks)* — Gujarat, India
Mechanical Engineer — June 15-July 16
- Designed an Automatic spot-welding machine to perform wire-mesh welding operation which improved productivity by 70 percent
- Developed a Semi-Automatic wire bending machine using an existing pneumatic cylinder

PROJECTS

Autonomous Navigation of Caterpillar Wheeled Robot : *(Simultaneous Localization and Mapping, Python)*
- Developed and implemented a feature-based localization algorithm known as Similarity Transformation which uses landmark's location to localise the robot using the Lidar and encoder data
- Implemented a featureless localization algorithm called Iterative Closest Point which assigns scan points to the walls of the arena to localise the robot even when the landmarks are not in the view of the robot
- Coached a Kalman filter by doing sensor fusion, used the extended Kalman filter, as the robot's states and control commands were highly non-linear. Augmented the filter to solve the mapping problem. Also, developed a much more sophisticated algorithm known as Particle Filter for localization purpose and extended it to a SLAM problem known as Fast SLAM 1.0

EDUCATION

University of North America, VA
Master in Business Administration — July 21 - Present
Santa Clara University Santa Clara, CA
Master of Science in Mechanical Engineering (Depth Area- Robotics and Mechatronics) — Sept 16 - June 18
Gujarat Technological University Gujarat, India
Bachelor's in Mechanical Engineering — July 11 - Jan 16

TECHNICAL SKILLS

Programming Language:	Python | C++ | JavaScript | HTML | CSS
Frameworks:	Django | React | Angular JS | Bootstrap
Utilities/Debugging tools:	Matlab | Simulink | Gazebo| Labview | Rviz
Databases:	PostgreSQL | MYSQL | MSSQL Server
BI Tools /Reporting tool:	MSBI | SSIS | SSAS | SSRS | Power BI

Platforms:	ROS	Microsoft Windows	Ubuntu Linux
Cloud Technologies:	AWS EC2	AWS S3
Other Skills:	Git Version control	CIFER	SCADA	Microsoft Office	Solidworks	Autocad