Roshin Kadanna Pally

roshinpally@gmail.com

linkedin.com/in/roshinkadannapally https://www.roshinkadannapally.com/

Summary

Senior Software Engineer with a proven track record of delivering highly impactful features of top quality.
- Experienced in designing and implementing simulation and visualization features for automated driving and signal processing fields
- A team player with an excellent work ethic and interpersonal skills
- Led projects and mentored new hires and interns
- Adept at working with cross-functional teams such as Usability, Technical Marketing, and Application Engineering to develop specifications

Experience

Senior Software Engineer

MathWorks

May 2016 - Present (4 years 8 months +)

Developed simulation visualization tools using C++, JavaScript, and MATLAB

Visit ☛ https://www.mathworks.com/videos/driving-scenario-designer-1529302116471.html

- Built driving scenario simulation tools in Automated Driving Toolbox
- Developed INS sensor integration; smooth, jerk-limited vehicle trajectories for simulation; Lidar point cloud generation; low-poly actor meshes; reverse motion in driving scenarios; road network data model for geographic maps such as HERE/OSM and OpenDRIVE; Driving Scenario Designer app; lanes ground truth specification, visualization, and detection; Driving Scenario Reader block and Bird's-Eye Scope in Simulink
- Improved road rendering performance by more than 50%

Software Engineer

MathWorks

Dec 2010 - May 2016 (5 years 6 months)

Contributed to the development of the new Simulink Scope and a Unified Scopes infrastructure

Visit ☛ http://www.mathworks.com/videos/new-interface-for-scopes-106836.html

- Developed various features such as simulation playback controls, style dialog, and a new programmatic interface
- Added support for assigning signals to displays, signal naming, sample times, enumerated data types, event-based signals, signal units, and data logging
- Improved the loading and rendering performance of the Scope
- Collaborated with usability and visual design teams on refining the new Simulink Scope GUI style, font sizes, icons, and colors

Signal Processing and Communications User Interfaces Intern

MathWorks

May 2010 - Dec 2010 (8 months)

- Migrated key graphical features of the MATLAB and Simulink products to the new MATLAB graphics system
- Provided basic graphical property editing capabilities in the Simulink Scope
- Improved performance of Simulink Signal and Scope Manager
- Added internationalization (i18n) and localization (l10n) support for various GUIs
- Fixed numerous bugs in the infrastructure and improved usability of GUIs

Research Assistant
Virginia Tech
Jun 2007 - May 2010 (3 years)
I received a graduate research scholarship from the DSP Research Lab at Virginia Tech directed by Dr. Louis Beex. I worked on various projects in Signal Processing and Communications. The projects involved research, development, and testing of software to implement signal processing algorithms. Additionally, I helped setup the design project for the DSP & Filter Design course, graded the course projects, and taught one class of the Signals and Systems course.

Education

Virginia Tech
M.S., Electrical Engineering
2007 - 2009
Thesis: Implementation of Instantaneous Frequency Estimation based on Time-Varying AR Modeling

SUNY New Paltz
B.S., Electrical Engineering
2004 - 2006
Senior Design Project: A Physical Activity Monitoring System
- Created an Embedded System to capture gait activity
- Created Software in MATLAB to process captured data

Licenses & Certifications

Leadership is everyone's business - FULL EXTENSION, LLC

Skills

Matlab • C++ • JavaScript • Data Structures • Design Patterns • React.js • Node.js • MongoDB • Dojo • Python (Programming Language)

Honors & Awards

Outstanding Graduate Award - State University of New York at New Paltz
May 2006

National Dean's List 2004-2006