

# Roshin Kadanna Pally

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 <https://www.roshinkadannapally.com/>

## Summary

Senior Software Engineer with a proven record of delivering highly impactful features.

- Experienced in designing and implementing simulation and visualization features
- 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 UX, Marketing, and Application Engineering


## Experience

### Senior Software Engineer

MathWorks

May 2016 - Present (4 years 9 months +)

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

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

- Built Driving Scenario Designer app and integrated Lidar and INS sensors
- Added lanes ground truth specification, visualization, and detection
- Developed Bird's-Eye Scope in Simulink and integrated Scenario Reader block
- Improved road rendering performance by more than 50%

Contributed towards the full-stack development of Logic Analyzer in Simulink

Visit  <http://www.mathworks.com/videos/logic-analyzer-overview-121719.html>

### 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 simulation playback controls, style dialog, and a new programmatic interface
- Added support for sample times, enumerated data types, event-based signals, signal units
- Improved the loading and rendering performance of the Scope
- Collaborated with UX and visual design to improve the new Simulink Scope GUI

### Signal Processing and Communications User Interfaces Intern

MathWorks

May 2010 - Dec 2010 (8 months)

- Migrated key graphical features of MATLAB/Simulink to the new MATLAB graphics system
- Provided basic graphical property editing capabilities in the Simulink Scope
- Improved launch performance of Simulink Signal and Scope Manager by more than 50%
- 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



**Mastering React** - Code With Mosh

cert\_b0rr5js3

## Skills

Matlab • C++ • JavaScript • Design Patterns • Node.js • React.js • MongoDB • Git • Teamwork • Communication

## Honors & Awards



**Outstanding Graduate Award** - State University of New York at New Paltz

May 2006



**National Dean's List 2004-2006**



**Eta Kappa Nu Association**

Dec 2005