

## Contact

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(LinkedIn)

## Top Skills

Matlab  
Simulink  
CAN bus

## Languages

Hindi  
Malayalam  
English

## Certifications

Formula Design Challenge  
Formula Student Germany

# SRIJITH PARAKKAT UMAKANTH

Robotics Engineer at Arcbest Technologies  
Chicago, Illinois

## Summary

Self-initiated, results-oriented Mechanical Engineer with excellent academic standing along with professional experience in the field of Control Systems, Hardware in the Loop (HiL) testing, CAD/CAM, FEA packages, Machine Design, Computer Vision and Deep Learning.

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## Experience

ArcBest Technologies  
Robotics Engineer  
July 2018 - Present  
Fort Smith, Arkansas

Servotech Inc  
Mechatronics Engineer  
August 2017 - August 2018 (1 year 1 month)  
Chicago

Hands-on experience in CAN bus standard, J1939 protocol communication ECM hardware and software.

- Built and tested CAN bus hardware using a Laptop PC with Kvaser USB/CAN card, three Arduino with CAN Modules, and PEAK PCAN-USB interface.
- Built and tested CAN bus communication software using MATLAB/Simulink, C language in IDE, PCAN-View to monitor CAN bus, CANape and CANalyzer.
- Read and write message programming to CAN bus under program control as well as timer driven interrupt and message received interrupt using Simulink and C-language, simulating simplified communication in automotive powertrain between engine ECM and transmission ECM

Indorama Ventures PCL  
Engineering Intern  
June 2017 - August 2017 (3 months)  
Lake Charles, Louisiana Area

Understand the architecture of ABB's Distributed Control System (DCS) & analyze the level of redundancy for safety.

- Study and the understand the system control narrative for a Burner Management System (BMS) used in a boiler and verify it with its Functional Logic Diagram which is then coded onto the ABB Symphony plus DCS system.
- Performed control loop testing of thermocouples installed in field & its inputs to the ABB Symphony plus DCS system.

## University of Illinois at Chicago

### Office Assistant

November 2016 - June 2017 (8 months)

Chicago, Illinois

Assist with coordinating and planning departmental events like research team meetings, conferences etc.

- Assist in book keeping, filing and maintaining proper resident student database.
- Updating student grades and feedbacks on their respective database.
- Assisting with preparation of manuscripts, presentations, grants, and reports (e.g., references, literature reviews, tables)

## Pillai Institute of Information Technology, Engineering and Research

### Research Assistant

October 2015 - July 2016 (10 months)

New panvel

I was employed as a Research Assistant at the Pillai Institute of Information Technology and Engineering, New Panvel, affiliated to the University of Mumbai. My project is titled 'Design, prototyping and testing of Ferro Fluid based Damper'. I've employed programs like Data Acquisition System by National Instruments(NI) and LabView. The project involved working with various sensors like PCB accelerometers , Futek load cells and other industry grade hardware. This project enabled me to get well versed with coding and using Micro controllers like Arduino and Rasberry Pi to control various DC , stepper and Servo motors. Fabrication of the test bench also had me working on 3D printing, laser cutting and PLC controls.

I have also designed, programmed and manufactured a Dynamic Material Analyzer which could test the mechanical properties of a polymer. The programming was done using National Instruments(NI) LabView software and the data acquisition was using NI DAQ systems. The loads were measured using Futek Loads cells. The raw data acquired was processed using MATLAB.

<https://in.linkedin.com/pub/hyperion-racing-team/8a/332/989>

#### Power Train Head

March 2013 - September 2014 (1 year 7 months)

We designed and analyzed Air Intake and Exhaust systems for our HRT 01 Formula Student car to get optimum performance out of it.

We designed and analyzed different components for the entire transmission of power from engine to the wheels which included chains, shafts, custom differential housing and wheel hubs.

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## Education

University of Illinois at Chicago

Master of Science (M.S.), Mechanical Engineering · (2016 - 2018)

University of Mumbai

Bachelor's degree, Mechanical Engineering · (2011 - 2015)