Sravan Balaji

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Education

- **University of Michigan** Ann Arbor, MI
  M.S. in Robotics; GPA: 4.000 *Jan. 2021 – Dec. 2021*
  - Mobile Robotics, Design of Digital Control Systems, Robot Operating Systems

  B.S.E. in Mechanical Engineering and Computer Science; GPA: 3.776 *Sep. 2016 – Dec. 2020*
  - Autonomous Robotics Lab, Computer Vision, Machine Learning, Automatic Control

Work Experience

- **Rivian** Remote
  ADAS Controls Intern *Jun. 2020 – Aug. 2020*
  - Supported creation of Model-in-Loop framework for production controls software components; tested 50 requirements, identified and resolved 7 issues
  - Integrated speed limit algorithm into production controls software for use with Simulink Coder C/C++ code generation; considerations made for embedded system processing limits and time delays
  - Modified MATLAB data processing scripts to work with new test logs; compared performance against requirements and simulation to determine controls parameters to tune

- **Hughes Network Systems** San Diego, CA
  Software Development Intern *May 2019 – Aug. 2019*
  - Created Windows GUI app in C# employing .NET framework; automated mobile terminal configuration process to reduce user involvement, prevent errors, and decrease configuration time
  - Implemented location based services on terminal software written in C; leveraged MQTT-SN protocol to provide low-cost method of sending GPS data to server

- **Rivian** Plymouth, MI
  Business Technology Intern *May 2018 – Dec. 2018*
  - Championed effort to remove BOM data inconsistencies; developed Excel macro to summarize mass and cost data, alert PMs of incorrect data; resulted in faster detection and resolution of issues
  - Introduced and designed an internal website to collect and display data from business systems utilizing Python and Django; worked with REST APIs to present reports of issues by severity
  - Led effort to migrate IT team to a new service desk; worked with Jira Service Desk to automate triage and assignment of IT tickets; increased ticket resolution rate within SLA targets from 70% to 95%

  Vehicle Integration Intern *Jun. 2017 – Aug. 2017*
  - Developed a program in Java to summarize results of simulation; allowed users to modify inputs to see projected results of simulation to avoid additional testing and reduce costs

Research

- **Compliant Systems Design Lab** Ann Arbor, MI
  Research Assistant *Jan. 2019 – Apr. 2019*
  - Formulated and conducted an experiment to investigate applicability of digital image correlation (DIC) for analyzing strain in fiber reinforced elastomeric enclosures (FREEs)
  - Analyzed creep behavior of FREEs and generated plots with C++ program

Skills

- **Programming**: C/C++, Python, MATLAB, JavaScript, C#, Java, Arduino, LaTeX
- **Libraries/Frameworks**: ROS, GTSAM, NumPy, PyTorch, Vue.js, Bootstrap
- **Computer Aided Design**: SolidWorks, CATIA
- **Languages**: English (first language), French (conversational), Tamil (conversational)