Sravan Balaji

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Education

- **University of Michigan** Ann Arbor, MI
  B.S.E. in Mechanical Engineering and Computer Science; GPA: 3.726 *Sep. 2016 – Dec. 2020*
  - Autonomous Robotics Lab, Mobile Robotics, Computer Vision, Design of Digital Control Systems

Work Experience

- **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 Bill of Materials data inconsistencies; developed Excel macro to summarize mass and cost data, find incorrect data, and alert project managers; 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

Projects

- **Digital Image Correlation (DIC) on Brass Tensile Test** Ann Arbor, MI
  GitHub: balajsra/eecs-442-dic-project *Mar. 2019 – Apr. 2019*
  - Programmed DIC on images of tensile test to calculate point displacements with OpenCV in Python
  - Generated plots of local strain concentrations and stress-strain curve to determine material properties: Poisson's ratio, Young's modulus, ultimate tensile strength, yield strength

Skills

- **Programming**: C++, C#, C, Python, Arduino, ROS, Java, Excel VBA, LaTeX, HTML, CSS
- **Computer Aided Design**: SolidWorks, CATIA
- **Simulation**: MATLAB, Simulink
- **Manufacturing**: University of Michigan Wilson Center Basic I & II, Mill Training
- **Languages**: English (first language), French (conversational), Tamil (conversational)