# ARIK T. JENKINS

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## WORK EXPERIENCE

### Head of Engineering                                                    08/2023 – 11/2023
Company: Stellar Pizza / Serve Automation Robotics || Department: Vehicle Engineering
- Developed a technical company strategy and criteria selection for a required reduction in force to maintain runway
- Restructured the engineering organization and reworked the design process to promote focus on impactful initiatives
- Represented engineering and the vehicle product in executive meetings to help drive company direction

### Head of Test and Integration                                           12/2021 – 08/2023
Company: Stellar Pizza / Serve Automation Robotics || Department: Vehicle Engineering
- Hired and mentored three engineers and two specialists
- Set up and led company engineering priority meetings to identify and plan resolutions for the most impactful vehicle reliability issues
- Organized vehicle work sprints utilizing the entire engineering department around major company milestones such as technical road trips to Las Vegas and San Francisco, investor demos, and public releases
- Spun off an Operations Engineering group - lead and mentored that group as it grew to 9 engineers

### Test and Integration Engineer                                          11/2020 – 12/2021
Company: Stellar Pizza / Serve Automation Robotics || Department: Vehicle Engineering
- First test engineering hire, oversaw integrated vehicle bring up and component and system level testing
- Built engineering Issue, Change, Test systems from the ground up
- Performed all functions related to full system capability testing from chopping vegetables and making dough and effectively capturing their process variables to performing root cause investigation, data analysis, firmware development, and design update recommendations
- Hired an operations engineer and technician

### Test Automation Engineer                                               08/2016 – 12/2019
Company: Space Exploration Technologies (SpaceX) || Department: Development Test
- Ran and managed large-scale testing and automation projects for several products
  - first stage landing legs 2.0 | fairing deployment pushers | parachute test instrumentation systems | Dragon capsule astronaut seats
- Developed test matrices adhering to NASA standards and balancing test complexity, cost, and effectiveness
- Designed and analyzed structures, electrical circuits / PCBAs, fluid flow, and thermal systems
- Designed software tools to enable pre and post-test analysis of distributed loads using foam load shoes
  - Pre-test: excel calculator estimating load distribution with discrete non-linear spring stiffness approximation
  - Post-test: pressure sensitive film paper with a computer vision algorithm to create a pressure map
- Enabled other engineers to self-serve test reporting by wroting an extensive Python library to automatically generate test reports using pass/fail parameters from an excel sheet
- Wrote a library of Python helpers to convert and down-sample Nation Instruments data to usable csv/xls
- Automated test stands utilizing Python to generate xml instructions

**Engineering Intern / Masters Researcher**                                    06 – 08/2015, 01 – 05/2016
Company: NASA Langley Research Center || Department: Structural Dynamics
   – Programmed a DC motor for precise speed/position control using PID and an Arduino for motor I/O
   – Built a physical model of a heliogyro solar sail blade and matched natural frequency with design concept
   – Created a computer vision application in Python to track targets and capture the model motion
   – Performed system identification using Observer/Kalman Identification and transfer function estimation on both the motor and blade model. Used models to design a novel control algorithm

**Teaching Assistant**                                                        08/2014 – 12/2015
Organization: The University of Alabama || Department: Mechanical Engineering
   – Lectured on Static Machine Design and administered tests, quizzes, and homework assignments
   – Taught and facilitated two senior mechanical engineering labs

## TECHNICAL SKILLS

   – **Most recent core job function**: Fault tree analysis, organizational leadership, team building and talent acquisition, engineering strategic planning, Jira and Confluence Admin suite
   – **Previous core job function**: Python, Matlab, Simulink, C++, Computer Vision OpenCV, Arduino microprocessors, circuit building, and electro-mechanical control,
   – **Proficient but never core job**: Full Stack Web Application Development – HTML, CSS, JavaScript, NodeJS, React

## EDUCATION

**MS in Mechanical Engineering,** GPA: 4.00/4.00 – The University of Alabama, Tuscaloosa, AL          May 2016
Focus: Control Systems | Thesis: Control design and instrumentation - Heliogyro Solar Sail

**BS in Mechanical Engineering,** GPA:  3.87/4.00 **–** The University of Alabama, Tuscaloosa, AL          May 2014
SAT: 2250/2400, GRE: 326/340, ACT: 34/36

## SKILLS/HONORS/HOBBIES

   – Conversational Spanish
   – National Merit Scholar
   – American Society of Mechanical Engineers
   – Running an entrepreneurship group

   – Alpha Sigma Phi Fraternity President
   – Travel in Mexico, Spain, Brazil, Thailand
   – Skiing, guitar, volleyball
   – Off-roading/ working on my Jeep