Tejas Maraliga

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EXPERIENCE

Page Research Group   **Feb. 2022 – Present**
Undergraduate Research Assistant   *Austin, TX*
- Designing a copolymer acrylate resin system for 3D printing of shape-memory, semi-crystalline structures.
- Designed a system for the visible light photoROMP of dicyclopentadiene using a visibly latent ruthenium metathesis catalyst.
- Utilizing analytical techniques such as Fourier Transform Infrared Spectroscopy, DMA, DSC, photorheology, and tensile testing to evaluate resin curing characteristics and ultimate material properties.

Formula SAE: Longhorn Racing Internal Combustion   **Feb. 2022 – Present**
Software Lead   *Austin, TX*
- Leading a team of seven undergraduate computer science and electrical engineering students.
- Designing PCBs and writing firmware for a variety of circuit boards on an internal combustion engine racecar.
  - Developing efficient firmware within the STM32 environment for transmission control, engine control, and power distribution.
- Utilizing telemetry data to build and tune closed loop PID control systems for launch and traction control.
- Created a pipeline for end-to-end acquisition, processing, storage, and visualization of telemetry data within a resilient cloud infrastructure on Amazon Web Services.

Fidelity Investments   **Jun. 2022 – Aug. 2022**
Systems Engineering Intern   *Smithfield, RI*
- Created a portal to facilitate server-to-server messaging, enabling creation and testing of event subscriptions for financial institutions.
  - Provided a testing team with autonomy to stream event notifications to financial institutions without intervention from a team of developers.
- Performed full-stack development, utilizing technology such as Angular, Springboot, Oracle Database, and Apache Tomcat.
- Worked heavily within **Agile**, utilizing scrum ceremonies to increase velocity throughout each sprint.

The Internship Initiative LLC.   **Jan. 2020 – Dec. 2022**
Vice President of Technology   *Southborough, MA*
- Single-handedly designed and implemented backend infrastructure for three enterprise products on Amazon Web Services.
- Built Flask apps to serve three React web-apps while assisting with front-end development and backend integration.
- Enforced DevOps practices such as Infrastructure as Code, unit and integration testing, CI/CD, and continuous monitoring.

EDUCATION

The University of Texas at Austin   **Expected May 2024**
Bachelor of Science in Chemical Engineering   *Austin, TX*
- GPA: 3.43/4.0

CERTIFICATIONS

[AWS Certified Developer-Associate](#)   **Aug. 2021**
Validation Number: 200XB5QLM2EQ105Q

SKILLS & RELEVANT COURSES

Technical Skills: Angular, ARM, AWS, Bash, C, C++, DLP 3D Printing, Docker, Express.js, Flask, Git, GraphQL, Java, JavaScript, Jest, Jira, Linux, MongoDB, Node.js, Oracle Database, Pytest, Python, React, Springboot, STM32, Tomcat

Laboratory Skills: Air-free techniques (Schlenk Line operation), Fourier Transform Infrared Spectroscopy, Dynamic Mechanical Analysis, Differential Scanning Calorimetry, Glovebox operation, Photorheology, Tensile Testing, UV-vis spectroscopy