ELLIOT TRAPP

SOFTWARE & MISSION OPERATIONS ENGINEER

elliottrapp.com | Los Angeles, CA

PROFESSIONAL EXPERIENCE +

NASA Jet Propulsion Laboratory, Software and Mission Operations Engineer **July 2019 - Present**

System for Telemetry Organization and Recovery (STOR) System Engineer

- Authored system engineering products including, Concept of Operations (ConOps), requirements, interface and sequencing diagrams and more, leading the initial development of the System for Telemetry Organization and Recovery (STOR) project.
- Facilitated seamless collaboration among team members by organizing regular tag-ups, maintaining comprehensive wiki documentation, and establishing dedicated Slack channels for project communication.
- Developed and maintained detailed Gantt charts to track and report project progress across multiple initiatives, ensuring alignment with L1 requirements and timely achievement of deliverables.
- Leveraged draw.io, PlantUML, and Mermaid.js to produce detailed project documentation and visual diagrams, significantly enhancing clarity and understanding for team members and stakeholders.

Operational Cloud Store (OCS) Cognizant Engineer

- Presented technical proposals on data management and cloud integration strategies, advancing data system engineering for the Europa Clipper project.
- Defined Infrastructure as Code (IaC) practices and produced dozens of Terraform and Serverless modules across the Europa Clipper mission, contributing to ongoing optimizations in DevOps practices and security.
- Conducted training sessions on operations topics, fostering team knowledge in system administration and cloud operations.

Distributed Object Manager Operational Lead

- Led a high-performing team of five engineers and four cohorts of interns to provide mission-critical support for twelve flight projects, ensuring operational excellence and reliability.
- Successfully deployed and managed a JIRA customer service desk, streamlining customer ticket processing and tracking.

Mars Sample Return Lander (SRL) Flight Software Developer

- Delivered python autocode modules to write C flight software for the SRL project enabling telemetry uplink and downlink from the surface of Mars.

Mars 2020 Entry Decent & Landing Visualization Developer

- Integrated orbiter telemetry, empowering the world to witness the real-time location of the MRO and MAVEN orbiters on landing night.

NASA Jet Propulsion Laboratory, Software Engineering Intern **January 2019 - July 2019**

Dynamics Algorithms for Real-Time Simulation (DARTS) Software Engineer

- Developed a multi-threaded optimization algorithm for efficient multi-body state propagation in physics simulations, improving computation speed and accuracy.
- Automated the generation of Jupyter notebooks for annual training sessions, enhancing customer engagement and streamlining instructional materials.

SKILLS

Systems Engineering	Project Management	Professional Development	Stakeholder Engagement	Risk Management	Systems Integration	Requirements Analysis
CI/CD	Git/GitHub	Docker	Terraform	Serverless	Jenkins	Puppet
AWS	Python	ElasticSearch	Type/JavaScript	C	HTML/CSS	JIRA

EDUCATION

Master of Science, Computer Science *2016 - 2018*

DePaul University, Chicago

Master of Arts, Philosophy *2012 - 2015*

The New School for Social Research, New York

Bachelor of Arts, Philosophy & Political Science *2007 - 2011*

DePaul University, Chicago

CERTIFICATIONS

AWS Advanceduser *January 2021*

AWARDS

NASA JPL Team Award *Sept 2024*

NASA JPL Voyager Award *July 2023*

NASA JPL Team Award *Sept 2022*

NASA JPL Team Award *June 2022*

NASA JPL Individual Award *April 2022*

NASA JPL Team Award *Sept 2021*

NASA JPL Team Award *July 2021*