ELLIOT TRAPP

SOFTWARE & MISSION OPERATIONS ENGINEER

elliottrapp.com

PROFESSIONAL EXPERIENCE +

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

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.

Operational Cloud Store (OCS) Cognizant Engineer

- Developed and deployed AWS infrastructure utilizing services including S3, OpenSearch, DynamoDB, APIGateway, CloudFormation EC2, ECS, and more, facilitating secure data transmission between 27 engineering teams and diverse international partners.
- 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

- Spearheaded the implementation of a new Ground Data System (GDS) paradigm, overhauling the command product uplink pipeline in use by 12 active flight missions.
- Led a high-performing team of 4 engineers and three cohorts of interns to provide mission-critical support for 12 flight projects, ensuring operational excellence and reliability.

NASA Johnson Space Center, Software Engineering Intern   *August 2018 - January 2019*

- Developed a sophisticated Recurrent Neural Network model to classify astronaut cognitive workload using pupillometry image data, enhancing space mission safety and efficiency.

SKILLS +

Python	Perl	Elastic/OpenSearch	S3	Cloudformation	Jenkins	Project Management
Javascript	Terraform	Lambda	IAM	Docker	HTML/CSS	
C	Serverless	EC2	APIGateway/R53	Puppet	System Engineering	Training & Development
Ruby	AWS	ECS	Cloudwatch	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 Voyager Award   *April 2022*
NASA JPL Team Award   *Sept 2022*
NASA JPL Team Award   *June 2022*
NASA JPL Team Award   *Sept 2021*