OLIVIA JACOME

Senior UI UX Researcher & Designer

Education

M.S. Mechanical Engineering
Concentration: Human Robot Interaction & Controls
The Ohio State University
2022

B.S. Design, Innovation & Society
B.S. Mechanical Engineering
Rensselaer Polytechnic Institute 2018

Skills

- Python
- MATLAB
- Figma
- Axure
- Qualtrics
- Usability testing
- Illustrator
- Photoshop
- Jira
- Miro
- Confluence
- Interviews
- Survey Design

Publications

Assessment of Driving Simulators for Use in Longitudinal Vehicle Dynamics Evaluation

Data-Driven Driver Model for Speed Advisory Systems in Partially Automated Vehicles

Patent US11194471b1 – Apparatus and Method for Display Control Based on Touch Interface

Associations

Pi Beta Phi – VP Recruitment

The Society of Hispanic Professional Engineers

Experience

UX/UI Technical Designer III - Torc Robotics **Jun. '22 – Jun. '25**

Awards: 2022 Q4 Honk the Horn Award – Outstanding employee award. Selected for driving the communication between the UX/product team and the rest of the organization.

- Developed and led the comprehensive UX strategy for Remote Assistance and Roadside Support applications translating complex system behavior of autonomous trucks into clear, actionable information for human operators.
- Collaborated closely with autonomy, perception, and systems engineers to align user interfaces with underlying autonomous behaviors, constraints, and failure modes, ensuring appropriate trust and effective human intervention in semi-autonomous systems.
- Led end to end UX research combining qualitative insights and quantitative metrics (e.g. SUS, response time) to improve human–autonomy collaboration, achieving SUS score above 85 and outperforming industry benchmarks for safety-critical systems.
- Designed a remote camera viewing experience with dynamic views based on assistance needs and bandwidth constraints, optimizing camera placement and orientation through user testing to mirror real road scenes, limit operator disorientation, and create an in-vehicle perspective.
- Contributed to the design and evaluation of external autonomous vehicle lighting behaviors, ensuring regulatory compliance while effectively communicating system intent to other road users and law enforcement officers.
- Partnered with product managers to translate research insights into product requirements, prioritize features, and align solutions with the product roadmap, balancing user needs, technical feasibility, and business goals.
- Produced and validated core UX and research artifacts (e.g., personas, user workflows, wireframes, prototypes, A/B tests), pre-testing concepts with end users (remote and in person) and collaborating with engineering to ensure technical feasibility.
- Supported design validation and usability testing during Agile sprint cycles to ensure solutions met usability, quality, and performance requirements.
- Managed and coached junior designers and product managers in UX methodologies, participatory design, usability testing, persona development, and documentation practices.

University Researcher - Center for Automotive Research OSU **Aug. '20 – Jun. '22**

- Designed and implemented a path planning and obstacle avoidance algorithm for a 6-DOF da Vinci Research Kit (dVRK), enabling autonomous manipulation in a constrained task environment inspired by the game *Operation*.
- Implemented real-world driving scenarios in a simulator and assessed the simulator's physical and behavioral validity by comparing simulated and on-road driving metrics.
- Developed an LSTM-based model of human driving behavior to predict operator responses in human-in-the-loop control systems, leveraging high-fidelity driving simulator data and a speed advisory interface.

User Interface Engineer - Honda R&D **Aug. '18 - Aug. '20**

- Led UX wireframing, design and implementation of navigation and phone vehicle applications within the Acura product line.
- Planned and conducted internal team design sprints and UX discovery workshops.
- Collaborated with third party market research firms to organize and conduct Qualtrics surveys and usability studies, aiming to understand users' needs and knowledge of Honda products and features.