Matthew Miller

Interaction Design | Prototyping | User Research

hello@matthewmiller.design
www.matthewmiller.design

CARNEGIE MELLON UNIVERSITY
Masters Human-Computer Interaction
IxD, Human Factors, Contextual Inquiry

TUFTS UNIVERSITY
B.A. International Relations, Japanese
Writing Fellow, Tufts in Japan

RIVIAN
Sr. Lead UX Designer
2021 - 2024

Led multi-modal design of safety (ADAS), autonomy, and camera-based features
- Defined and evolved Rivian's visual, audio, and haptic language of autonomy.
- Reduced mode-errors by improving the driver-stalk interaction and driver takeover experience.
- Set new standard for prototype fidelity and created hardware-connected Protopie prototypes.
- Created a novel interaction for switching cameras; conducted user-testing to gain approvals.
- Delivered state-machine diagrams and logic-flows to engineering for sensor-reliant features.

VICARIOUS AI
Lead HMI Designer
2020 - 2021

Redesigned fulfillment center HMIs that enabled human control of robotic systems
- Conducted company's first on-site user study and succesfully evangelized a UX-led process.
- Collaborated with industrial designers to define robotic enclosures and ensure operator safety.

MISO ROBOTICS
Product Designer (Contract)
2020

Designed HMI for kitchen workers interacting with *Flippy*, a cooking assistant robot
- Iteratively designed physcial prototypes and digital designs; delivered HMI to White Castle.
- Used research findings to advise Industrial Design team on hardware selection and ergonomics.

BYTON
UX Design Lead
2018 - 2020

Designed in-vehicle features, with a focus on ADAS, while reviewing team deliverables
- Led end-to-end design of vehicle charging experience through concept, testing, and delivery.
- Implemented new global trackpad that measurably reduced driver's off-road gaze time.
- Instated design team processes for advancing concept work into production.

HARMAN
Interaction Designer
2017 - 2018

Created system of interactions for controlling semi-autonomous vehicles
- Coded interactive prototypes in Framer that sent commands to the CARLA driving simulator.
- Documented a system of interaction patterns for semi-autonomy, and provided rationale.
- Built a physical prototype of a novel in-vehicle control as part of the Carnegie Mellon Capstone.

FUELED
Sr. Product Design Manager
2016 - 2017

Established user-centered practices while managing mobile, web, and hardware projects
- Formalized usability testing and analytics processes within the organization.
- Hired, trained, and oversaw a team of three Junior Product Design Managers.

GROUNDLINK
Mobile Experience and Product
2014 - 2016

Redesigned rideshare ecosystem incl. fleet management, passenger and driver apps
- Served as "voice of the driver", conducted company wide inquiry to uncover operational needs.
- Designed and launched white-label car service app resulting in 320+ recurring subscriptions.
- Redesigned driver mobile app with industry-first heatmap; hit 5 year high for on-time service.

HYUNDAI/MEDL
Mobile UX Strategist
2011 - 2014

Managed in-vehicle and mobile development from pitches to project execution
- Led 12 person Hyundai in-vehicle app team from RFP response to software delivery.
- Created mobile app wireframes and revised according to client feedback.

Technology	Principles and Practices	Live Feature Highlights
ProtoPie Connect	Wireframing	Highway Assist Auto Re-engage
Figma/Sketch	Task Analysis	Highway Assist Mode Clarity
HTML/CSS/JS/JAVA	User Journeys	Amazon Delivery Rear Camera
Particle/Arduino	Human Factors of Traffic Safety	Flippy White Castle HMI