

EDUCATION

CARNEGIE MELLON UNIVERSITY - SCHOOL OF DESIGN (INDUSTRIAL DESIGN)

PITTSBURGH, PA | 2012 - 2016

NOTED COURSEWORK: COMPUTER SCIENCE, MECHANICAL/ELECTRICAL ENGINEERING, PROJECT MANAGEMENT, ARCHITECTURAL DESIGN

EXPERIENCE

SNAPCAB ELEVATOR AND POD SYSTEMS - R&D ENGINEER

WARRINGTON, PA | 2022 - 2024

- Embedded with each dept to best understand our product's journey, address employee pain points, and audit unchecked issues
- Managed end to end development of new products – evaluating proposals, identifying MVPs, refining production processes, tracking issues, sourcing materials/hardware/tooling, and logging changes for cross-team viability and key stakeholder input
- Emphasizing the utilization of lean principles, I investigated alternative approaches to existing production methods leading to effective degradation of recurrent time, material, and overhead waste
- Oriented teams towards cross-departmental collaboration and communication – enabling a more methodical synchronization of the many parallel inputs needed to ensure timely coalescence of everyone's work into a fully formed, freight-ready product
- Launched new products/processes – leveraging existing resources and supply chains, introducing new ones where needed
- Generated and produced data sheets, physical and visual guides, and targeted presentations to aid in the dissemination of new concepts and policies to all relevant parties and a worry-free handoff to the manufacturing production floor

POWER DESIGN + FABRICATION - DESIGNER / MAKER / ENTREPRENEUR

BROOKLYN, NY | 2018 - 2019 | BUCKS COUNTY, PA | 2020 - 2022

- Designed custom furniture, architectural features, lighting concepts, and retail fixtures for commercial and private clients
- Collaborated with other local designers, makers, and doers in various fields in a shared studio and shop environment
- Generated detailed CAD models and production drawings for distribution to peers and clients
- Designed, fabricated, and installed finished products at nyc and bkn dining and nightlife establishments, such as Output and Elsewhere

VOYAGE AUTO (GM CRUISE) - UX DESIGNER / TEST ENGINEER

PALO ALTO, CA | 2019 - 2020

- Utilized UX studies and HCI principles to drive improvements to both rider and operator interactions and experiences
- Established protocols and standards for vehicle testing to assist autonomy engineers in tracking performance across sw releases
- Developed and deployed motion-planning scripts to aid in tracking operator performance and identifying recurrent challenges
- Worked with telemetry team to deploy remote control software, and design hardware/interfaces best suited for operators and riders
- Prototyped remote control stations, pursuing the optimal ergonomic "feel" of the in-person vehicle operator driving experience
- Triaged, charted, and presented vehicle improvements/regressions, as well as test-rider feedback, in bi-weekly sprint summaries

UBER ADVANCED TECHNOLOGIES GROUP - TEST ENGINEER I / TEST OPS SPECIALIST II

PITTSBURGH, PA | 2016 - 2018

- Part of the then little known Uber Self-Driving project which launched the world's first publicly available self-driving taxi fleet
- Selected for "Black Ops" – a small team (<10) executing high-level special projects, reporting directly to Travis Kalanick
- Evaluated riders' emotions, comfort, and trust in the technology utilizing UX studies, HCI principles, and user research studies
- Designed and fabricated electro-mechanical devices, props, and sensors to enhance and record more realistic testing scenarios
- Developed a master suite of structured test cases to track system improvement or regression, and capture edge case scenarios
- Tested system performance against direct and in-direct competitors (Tesla, NVIDIA, MobileEye, etc) in simulation and in real world testing conditions on public roads and across our private proving grounds

PIECEMAKER TECHNOLOGIES - ADDITIVE MANUFACTURING ENGINEER (INTERNSHIP)

PITTSBURGH, PA | 2015

- Supported hardware and software R&D efforts to develop publicly dispersed, self-service 3D design and 3D printing solutions
- Developed 3D base-models best suited for quick and easy customization by general users using interactive touch screens
- Drove user-experience improvements through live design research studies hosted in house and in the field
- Identified failure modes in self-service printing kiosks situated in a variety of spaces, including on-location with our brand partners (Toys-R-Us, Ford Motors, Nickelodeon Studios), and at numerous local public spaces (malls, museums, and libraries)

TOOLS

DESIGN

UX, UI, HCI, DFM, rapid prototyping, design thinking/research, 2D + 3D design/rendering/sketching, journey maps, user testing, ergonomic testing

FABRICATION

CNC programming/operation, custom machine design/setup, 3D printing, lasers, woodworking, welding, machine shop, tool/die/fixture design, carbon fiber/composites construction, material selection/sourcing, workshop safety, leadership, and instruction

DIGITAL

Fusion 360, Solidworks, AutoCAD, Photoshop, Illustrator, Blender, SketchUp, Rhino, InDesign, Premier Pro, Figma, Inventor, Substance, After Effects, Lightroom; Comfortable with macOS, Windows, and Linux; Git and cli tools; Basic coding including python/c++/js; markup/html/css

MISC

Root cause analysis, lean manufacturing, six sigma, mechatronics, research & development, test engineering, troubleshooting, FMEA, EHS, machinery and tooling evaluation and integration, microprocessors, ac/dc electrical systems, trained in performance and emergency driving