

Makoto Kumasaka

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professional experience

NASA *Designer*

- Present**
- Providing technical support to the Center for Design and Space Architecture (CDSA) as a contractor
 - Collaborating with teams across the National Aeronautics and Space Administration (NASA) to visualize mission architecture and determine the course of multi-million dollar programs
 - Developing extended reality (XR) applications for Human-in-the-Loop (HITL) testing with astronauts and subject matter experts to improve design of lunar, martian, and orbiting habitation/mobility efforts
 - Enhancing simulation performance with optimized models, texturing and lighting
 - Exploring novel softbody and kinematic techniques for animating vehicle softgoods and hardware
 - Facilitating XR demonstrations for directorate and international stakeholders during knowledge transfer
 - Using computer-aided design software to draft architectural interiors and exteriors
 - Creating diagrams and presentations that communicate complex systems and ideas to stakeholders
 - Efficiently building hardware prototypes to evaluate human-machine interface on a variety of scales
 - Co-recipient of the "2022 JSC Director's Innovation Team Award" for quickly developing remote testing capabilities during the COVID-19 Pandemic (awarded by NASA JSC Director - Vanessa Wyche)

Skill Mill *Lead Technology Educator*

- 2019-2020**
- Expanded K-12 curriculum on Arduino, Microbits, Scratch, and introductory microprocessors
 - Designed website, logo, and social media presence (doubled user engagement over 6-month period)
 - Initiated a product teaching design skills across a dozen schools in the New York school system
 - Corresponded with customers and a five-person team of makerspace instructors

Harvard Art Museums *Exhibition Design Intern*

- 2018-2019**
- Sketched and modeled gallery schematics for new acquisition of Edo Period artifacts
 - Negotiated design and technical decisions between design lead, curators, and museum administration
 - Conducted research on Japanese architecture and synthesized documents to educate museum patrons
 - Drafted a report and presented a final defense of my design proposal to museum curators

additional experience

RISD *Lab Educator*

- 2015-2019**
- Monitored student use of rapid prototyping and design tools into four distinct facilities
 - Leading digital design and fabrication workshops on 3D printers, laser-cutters, and CNC machines
 - Reviewed and organized written tests, technical manuals, and other administrative documents
 - Provided consultation to undergraduate and graduate students on personal and professional projects

Studio Endo *Design Intern*

- 2016-2017**
- Designed, drafted, and built new workshop layout for metal and wood fabrication
 - Facilitated the acquisition of materials and outsourcing of production
 - Interacted with clients and movers to facilitate sales, shipping, and white-glove delivery of pieces

Art Prof *Marketing Intern*

- 2016**
- Launched an online visual arts education platform produced by WGBH Boston
 - Collaborated with other interns to brainstorm, film, and edit peer advice segments on the platform
 - Wrote, edited, and designed promotional content for social media and Art Prof website

education

Rhode Island School of Design

BFA - Furniture Design & Manufacturing 2019
GPA: 3.837

Brown University

Japanese Lang and Lit 2015 - 2019

skills

Design - Rhinoceros3D, Fusion 360; Adobe Photoshop, Adobe Illustrator, Adobe Indesign, Adobe AfterEffects; Figma, AdobeXD

Development - Unreal Gaming Engine, Adobe Substance 3D, Blender3D, Perforce; Python, Javascript (Three.js, Typescript, p5.js), HTML, CSS, Git

Hardware - Arduino, RaspberryPi, 3D printing, carpentry, metal fab, soldering