

ALEXANDER CREASE

Designer / Engineer / Educator

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Education

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MS: Integrated Design & Management, Sustainability Certificate, MIT School of Engineering & Sloan School of Management

- Design Fellowship Recipient: 1-year fellowship from the MIT Morningside Academy for Design to support thesis research
- Teaching Assistant: Product Design & Development, Exploring & Applying Human-Centered Design, various fabrication classes

Cambridge, MA

2021 - 2023

OLIN COLLEGE OF ENGINEERING

BS: Engineering with Robotics, Humanities Concentration: Creative Writing

- Merit Scholarship Recipient: 4-year half-tuition scholarship from Olin College
- Teaching Assistant: Design Nature, Student Lead: 3D Printing Studio

Needham, MA

2012 - 2016

Work Experience

DELVE

Innovation Strategy Intern

Boston, MA | 2022

- Developed a framework of 25 metrics of business, team, and individual behaviors which facilitate innovation.
- Proposed a method to benchmark innovation metrics and pinpoint areas for improvement for clients.
- Presented the Innovation Enablement Framework and key internal findings to the executive team.
- Conducted qualitative research across internal teams to assess what we did well and where we could improve.

FORMLABS

Product Marketing Manager

Somerville, MA | 2021 - 2022

- Created and managed enterprise marketing campaigns based on qualitative and quantitative customer research.
- Worked with the Business Development Team to build marketing strategies and messaging for deals \$50K and above.
- Developed technical messaging on products and materials for SLA and SLS-based 3D printing methods.

VECNA ROBOTICS

Hardware Product Manager

Waltham, MA | 2020

- Established the 3-year product roadmap for Vecna's autonomous warehouse materials-handling vehicles.
- Defined product requirements and test methods to validate system performance and yield favorable customer ROI.
- Collaborated with Business Development and Engineering to release an autonomous lift truck in under 9 months.

MARKFORGED

Senior Applications Engineer

Watertown, MA | 2016 - 2019

- Consulted with customers to integrate high-value applications of industrial 3D printing into their production workflows.
- Researched manufacturing workflows to validate product-market fit for new printers, materials, and software solutions.
- Created educational workshops, videos, and guides to teach customers about design for industrial 3D printing.

Academic Projects

K-5 SUSTAINABILITY EDUCATION FRAMEWORK

MIT IDM Master's Thesis | 2022-23

- Identified gaps in sustainability and climate change education through primary and secondary research.
- Tested communication strategies and activities in classrooms to evaluate their effectiveness.
- Created a guide for educators to create optimistic and tangible sustainability curriculum for K-5 students.

TOY TO FOSTER OUTDOOR PLAY HABITS

MIT Integrated Design Lab | 2022

- Designed the RumbleBug, a toy that fosters outdoor play habits, as part of a semester-long team project.
- Built a framework for habit-building play based on insights from educators, researchers, and parents.
- Tested toy prototypes with over 50 children to collect feedback and iterate on the RumbleBug's efficacy.

CIRCULARITY OF CGM DEVICES WITH HENKEL

MIT Sustainable Business Lab | 2023

- Investigated circularity of Continuous Glucose Monitors (CGMs) with project sponsor Henkel.
- Identified key design-for-environment leverage points via life cycle, materiality, and financial assessments.
- Recommended changes to product, supply chain, and incentive program designs to establish a more cost-effective and environmentally friendly strategy for CGM production.

Skills

DESIGN & RESEARCH

Qualitative & Quantitative User Research, Need-finding, Value Chain Mapping, Storyboarding, User Journey Mapping, Research Analysis, Design Thinking, 2D & 3D prototyping, Figma, Photoshop, Illustrator, InDesign, Premiere Pro

ENGINEERING & MANUFACTURING

Mechanical Design, Design for Manufacturing, FMEA, Materials Analysis, CNC milling, Industrial 3D printing, laser & waterjet cutting, sheet metal fabrication, Python, Arduino, Solidworks, Onshape, Fusion 360

MANAGEMENT & STRATEGY

Technical Product Management & Product Marketing, Competitive Analysis, Technology Roadmapping, Project Management, Systems & Service Analysis, Value Chain Mapping, Process Mapping, Innovation Enablement