Among sites around the country where MICA has partnered for curricular projects, and where students and alums have landed internships and jobs:



NASA Goddard Space Flight Center NASA Jet Propulsion Laboratory Johns Hopkins Institute for NanoBioTechnology (INBT) Johns Hopkins School of Medicine Center for Data Science in Emergency Medicine (CDEM) Johns Hopkins School of Public Health Johns Hopkins Cochlear Center for Hearing and Public Health Johns Hopkins University Applied Physics Laboratory R Adams Cowley Shock Trauma Center Millenium Space Systems Maryland Science Center American Institute of Physics **IBM Research** Google Smithsonian Natural History Museum Space Telescope Science Institute Medtronic Jacobs Technology Ball Aerospace **General Dynamics Missions Systems** Texas Biomedical Research Institute Microsoft Naked Prosthetics **BD** Diagnostics GeoSearch Environmental Information Walter Reed Army Institute of Research

MICA students who seek to deepen their understanding and experience with fields such as science and technology can take advantage of a growing number of programs and partnerships the College is offering.

HEMI/MICA Extreme Arts Program

This initiative brings faculty and students from MICA together with those from the Johns Hopkins University's Extreme Materials Institute (HEMI) to collaborate and explore ways to represent, visualize, and interpret research into how materials and structures react under extreme conditions. Core components of the partnership include an Artist/Designer in Residence program for MICA faculty, a Summer Project/Internship program for MICA students, and Extreme Arts Workshops.

Students in the internship explore various ways to visualize representations of the HEMI's research. Among work one recent intern completed was an animated gif that illustrated the helium rain process and inner structure of Saturn, which allowed a researcher to better interpret their hypothesis during presentations. Another, who worked with a team studying how micro-architectures can attain desired properties of flexibility and strength, applied their knowledge of materials to work with properties of plywood to produce a new way of 3D printing.

MICA + NASA

For almost a decade, MICA has partnered with NASA's Goddard Space Flight Center through curricular programing and internship opportunities. Through the Animation Department's Astro-Animation course, students collaborate with scientists at the Fermi Gamma-ray Space Telescope to translate astronomical or planetary concepts into animated films that help educate the public about Fermi's mission and the science behind it. The results include short films that explore concepts such as dark matter, high mass x-ray binary star systems, polycyclic aromatic hydrocarbons, and how neighboring black holes are affected by gravitational waves.

Summer internships centered on astrophysics and animation allow students to expand their experience communicating scientific and engineering concepts visually. Past student interns have not only created animations but also illustrations and videos featuring interviews with scientists.

STEM OPT Extension for International Students

International students majoring in Graphic Design or Animation who are interested in combining their interest in art and design with STEM fields are eligible for an Optional Practical Training (OPT) Extension. This 24-month period of temporary training must directly relate to an F-1 student's major in an approved STEM field, including areas of engineering, biological sciences, math, and physical sciences. Interested students can work with MICA's Office of International Education on the application process for the STEM OPT Extension during their last year in their BFA program.



Office of Undergraduate Admission mica.edu admissions@mica.edu 410 225 2222



MICA's focus on integrative education means that graduates emerge from college futureready, with agile thinking abilities and problem-solving skills that allow them to thrive across fields and disciplines.



..IN CUSTOM NANOFIBER, MICRO, AND DIGITAL **MANUFACTURING**



Shangtong Li INTERDISCIPLINARY SCULPTURE

is a design associate and facilities technician at DiPole Materials. an electrospinning company specializing in custom nanofiber manufacturing. While at MICA, Li pursued her cross-disciplinary interests in sustainable material development in the College's BioLab, and through an internship in the Hopkins Extreme Materials Institute (HEMI)/MICA Extreme Arts program. The internship allowed her to complete an independent material research project in collaboration with a faculty and students at Johns Hopkins University's Kang Lab.







Yuchen Zhang GRAPHIC DESIGN

is co-founder and CEO of Wearable Media, which explores human-computer interaction through clothing, wearables, and textiles. Zhang has shown her technologically enhanced fashion design at events around the world, and was

recently a fellow at the MIT

Open Style Lab.



.......

...IN STEAM **EDUCATION**

Kevin

Meadows

GENERAL FINE ARTS,

TEACHING

is program specialist for

enrichment, STEAM, and

arts integration for Frederick

County Public Schools in

Maryland.

Angela Walker ENVIRONMENTAL AND ARCHITECTURAL DESIGN

Winston Frazer

PAINTING

is co-founder and CEO

of Danae, Inc., a digital

manufacturing service

provider that offers 3D

printing, computer-aided

design, and optimization

for additive manufacturing.

A year after his graduation,

Danae was a \$25k winner

in MICA's annual UP/Start

Venture Competition. The

company's 3D printed

prosthetic covers for

amputees were recently

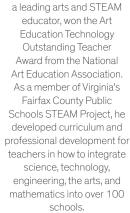
featured in the Smithsonian

Institution show Futures.

......

is lead microfluidics research and development engineer at Potomac Photonics Inc., a digital and micro fabrication company with a history of developing miniature medical, biotech, and electronics products using a broad range of technologies.





Andrew

Watson

ART EDUCATION



......

...IN ENGINEERING

& RESEARCH

Anne Marcotte GRAPHIC DESIGN,

INFORMATION VISUALIZATION

is a UI designer at the Johns Hopkins University Applied Physics Laboratory.



Cole Pritchard INTERACTIVE ARTS

is lead 3D printing technician in the Micro Devices Group at Technology Assessment & Transfer, Inc., which specializes in advanced, materials-oriented technologies for aerospace, defense, bio-medical, and industrial applications.



Morgan Ward

ILLUSTRATION

is a senior 3D animator/ illustrator for Oceaneering, which provides engineered services and products for the offshore and renewable energy, science, and aerospace industries.



...IN MEDICINE & AEROSPACE

Bogunovic FIBER, BUSINESS OF ART Jackie Meyer

Aleks

is founder and CEO of

Aerothreads, an SBA

Certified HUBZone and

Woman Owned Small

Business specializing in

Multi-Layer Insulation (MLI)

blanket products for the

aerospace industry. The

company has designed

hermal blanket systems for

critical aerospace missions

with optical, contamination

sensitive, and cryogenic

payloads. Clients include

NASA's Goddard Space Flight

Center and Langley Research

Center, Lockheed Martin,

Orbital ATK, the Laboratory

for Atmospheric and Space

Physics at the University of

Colorado, and more.

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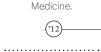
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Sofia Radin

SCULPTURE

DRAWING AND GRAPHIC DESIGN

is a senior medical illustrator at One World Design and Manufacturing Group in New York. While at MICA, Meyer was a medical illustration intern at the Rubin Institute for Advanced Orthopedics at Sinai Hospital in Baltimore. and went on to earn an MA in Medical and Biological Illustration from Johns Hopkins University School of



INTERDISCIPLINARY Sean Duffy

is a space suit fabricator for USER EXPERIENCE DESIGN SpaceX. Radin has also used is a lead interaction designer her knowledge of advanced for Intuitive, a global fabrication techniques for technology leader in minimally special effects costumes for invasive care and pioneer of film and television. robotic-assisted surgery.



INTERDISCIPLINARY SCULPTURE

is R&D engineer at Naked Prosthetics, which designs and fabricates prosthetic devices specifically for inger and partial hand loss. Lowing is responsible for industrial design across product lines, prototyping, research, and development.



Amy Wetsch

MULTIDISCIPLINARY ART

is lead artist on NASA's Dragonfly mission to Saturn's moon Titan, where she has created interactive sculptures to aid public engagement and community outreach. Wetsch's interest in Saturn's largest moon began while an intern in the HEMI/MICA Extreme Arts Program, where she worked with a HEMI fellow and assistant professor researching Titan for the Department of Earth and Planetary Sciences at the Johns Hopkins University Krieger School of Arts and



Sciences.

Rachel Lowing



...IN HYDROPONIC **AGRICULTURAL DEVELOPMENT**



Julie Buisson

Futures CTE Hydroponic

Farm at the Phillips

Programs for Children and

Families campus in Laurel,

Maryland, where young

adults learn how to grow

a variety of crops from

microgreens to rare herbs.

DESIGN LEADERSHIP co-founded the agricultural development business Modernature, which garnered a \$10k MICA LAB Award as well as \$25k in funding during MICA's annual UP/Start Venture Competition, Buisson recently designed the curriculum for the Growing

...IN SOFTWARE

& MOBILE APP **DEVELOPMENT**

Haley

Manchon

DRAWING

s lead designer for Paint.

Team, a collaborative

application that allows

users to team up and create

finished works of art from

anywhere in the world. A

winner in MICA's annual UP/

Start Venture Competition,

Manchon created layout

designs for Paint.Team's

desktop and mobile site as

well as design assets, and

app templates. Manchon

continues to show her work,

taking part in the Offscreen

Art Show at Ground Floor

Gallery in Brooklyn and

the Colored Pencil Society

of America's 26th Annual

International Exhibition in

Chicago, Illinois.

Emi MacLeod

GRAPHIC DESIGN

is an interaction designer for

Google's Android Auto. Prior

to joining Google, McLeod

worked for Alexa Automotive

as a UX designer.

enterprise, and retail construction trades. He was previously UX lead, working on projects for DeWalt Mesh Wifi, connection tools, enterprise IoT platforms, and construction jobsite asset tracking interfaces.



is a design manager for

Stanley Black & Decker,

Inc., where he designs IoT

interfaces and software for

customers in commercial,

Chelsea Tredupp INTERACTIVE ARTS

is a senior UI/UX designer creating intuitive interfaces and workflows for Akitabox, a facility management software startup. Tredupp savs that MICA is where her passion for combining art with technology with a focus on user interactions developed.



stephen dewyer

ART HISTORY

is founding director of Art in Tech Services Inc., a company focused on integrating employees with visual arts skills into the tech field, based on the belief that technology can be improved with creativity. Their services include website and web application design and development, artificial intelligence, native software design and development, UX/UI design environmental design, and



more.

Peter Brown Youjin Jang GRAPHIC DESIGN INTERACTIVE ARTS

is putting her user experience design skills to work at Zoom, where she's a senior product designer.







Vishnu Ganti

GRAPHIC DESIGN

is an AR/VR product designer for Meta, where she conceptualizes and iterates high-quality, end-to-end designs for conversational user interfaces at reality labs.



William Pyle GRAPHIC DESIGN,

INTERACTIVE ARTS

is a developer at Simcoach Games, creator of immersive learning games for academic institutions. government, and business. He previously worked at MedStar SiTEL creating virtual reality training applications for healthcare professionals

← Cover art by Lydia Liu