Team Adidas
Introduction Slides

Designing and validating a model predicting the performance of layered materials in running shoe midsoles

teamadidas2020@mit.edu

Gavin Vandenberg

Team Lead

Hometown: Elmhurst, Illinois, USA

Education: BS Mechanical Engineering, Minor in Economics, MIT '21

Previous Work Experience:

W.S. Darley & Co - Mechanical Engineering and Business Development Intern
Engineered drone payload release system for first responders using SolidWorks, created and expanded Smart Firefighting Community to assist startups develop technology for first responders

Tripp-Lite - Mechanical Engineering Intern
Modeled new components for server rack infrastructure using SolidWorks, communicated with sourcing partners to ensure correct part specifications using Excel database

Skills: CAD, Mechanical Design, MATLAB, Python, Business Optimization and Analytics

Sports Interests: Lacrosse (Varsity at MIT), Basketball, Football

Contact Information: gavinv@mit.edu

Jess Sonner

Communications Lead

Hometown: Naperville, Illinois

Education: BS Mechanical Engineering, MIT '22

Previous Work Experience:

Research Assistant - MIT Boyer Biology Lab
- Collaborated with a postdoctoral fellow to develop and validate an expansion microscopy protocol, resulting in the physical expansion of murine heart tissue
- Modified a python script quantifying tissue expansion determining the success of protocol adjustments
- Trained other research assistants to accurately execute the protocol and increase performance of results

Office Assistant - Illinois Energy Windows and Siding
- Handled customer phone calls ranging from inquires to complaints
- Relayed customer responses to office managers and brainstormed ways to improve customer satisfaction

Skills: Python, MATLAB, Microscopy

Sports Interests: Soccer (Varsity at MIT), Cross Country, Swimming, Basketball

Contact Information: jsonner@mit.edu

Alice Hong

Team Member

Hometown: Seoul, Korea

Education: M.S. Media Arts and Sciences, MIT Media Lab, MIT '21

Previous Work Experience:

Shima Seiki MFG., LTD - Trainee
Got trained on MACH2XS, a computerized knitting machine; apply knitting techniques to ideate innovative textiles
3D Body Scanning Lab - User Experience Researcher
Designed and customized wearables: protective gears and functional apparels, using 3D additive manufacturing
Thom Browne and Michael Kors - Textile Product Development Intern
Created tech pack for Ready To Wears and managed the fabric supply chain of global Headquarters, using ApparelMagic

Skills: Fiber Science/Apparel Design, 3D Modeling, Rapid Prototyping, Usability Testing, HCI
Sports Interests: Lacrosse, Basketball, Tennis, Yoga

Contact Information: alicesh@mit.edu

Olivia McGrath

Team Member

Hometown: Chevy Chase, Maryland

Education: BS Mechanical Engineering, MIT '21

Previous Work Experience:

The Boeing Company - Government Operations Intern
Created searchable database of radio frequency bands and their current allocations to determine appropriate frequencies for use by unmanned aircraft
Analyzed emergency aircraft evacuation demonstration results and the impact of seat sizes on passenger safety
Université Catholique de Louvain - Summer Research Intern
Analyzed micro CT scans of the enthesis to understand the effects of aging and type II diabetes on its structure

Skills: CAD, MATLAB, rapid prototyping

Sports Interests: Swimming (Varsity at MIT), Rowing (Former MIT Openweight)

Contact Information: omcgrath@mit.edu

Srimayi Tenali
Team Member

Hometown: Melbourne Beach, FL

Education: BS Mechanical Engineering, Minor in Energy Studies, MIT '20

Previous Work Experience:

Boston Consulting Group - Summer Associate
Developed analytics model for healthcare company with SQL, Alteryx, Excel to personalize consumer experience.

Chevron - Marine Engineering Intern
Analyzed deepwater system design to validate hydrodynamic response using FEA, Excel, MATLAB.

EMBR Labs - Product Design Intern
Conducted market research and field trials for new wearable. Developed user interface for product and app.

Skills: Product design, user interaction, rapid prototyping, data analytics

Sports Interests: Volleyball, Tennis

Contact Information: stenali@mit.edu

Alejandro Martinez

Team Member

Hometown: San Francisco, California

Education: B.S. Mechanical Engineering, MIT 2022

Previous Work Experience:

MIT Media Lab City Science Group - Undergraduate Researcher
Designed and manufactured storage units that optimized space and modularity for Piccolo Kitchen Project.

WSP Sweden - Engineering Intern
Redesigned two improved mounting systems for Lidar and photo rigs that reduced power usage by 50%.

MOS.com - Engineering Intern
Used JavaScript to retrieve information from an API to develop a 90,000+ point database

Skills: 3D-Modelling, MATLAB, 5+ years machining experience, rapid prototyping

Sports Interests: Cross Country, Track & Field, Basketball

Contact Information: amart615@mit.edu

Hayden Stalter

Team Member

Hometown: Greenwich, NY

Education: BS Mechanical Engineering, MIT '21

Previous Work Experience:

    Access Anvil Corporation - Mechanical Engineering / Technical Sales Intern
    Developed 3D models, drawings, and procedures to manufacture custom CNC milled EPS foam formwork and urethane formliners

    The Phantom Laboratory - Mechanical Engineering Intern
    Designed new molds and casting / machining drawings used in the manufacture of high precision ISO certified test objects for the medical imaging and radiation therapy fields

Skills: CAD / CAM Software, Prototyping, MATLAB, Additive Manufacturing

Sports Interests: Lacrosse (Varsity at MIT), Soccer, Basketball

Contact Information: hstalter@mit.edu

Israel Sosa

Team Member

Hometown: Del Rio, TX

Education: B.S. Mechanical Engineering, MIT 2020

Previous Work Experience:

MIT Media Lab: Conformable Decoders - **Undergraduate Researcher**
Researched and designed a wearable ultrasound device for traumatic brain injury patients with the use of blood flow mapping.

MIT Media Lab: Community Biotechnology Initiative & Lab for Innovation Science at Harvard- Undergraduate Researcher
Developed an extensive survey on the specifications required to help remediate and detect unsafe levels of contaminants in water supplies in Ghana.

Skills: MATLAB, Arduino, CAD Modeling, Prototyping

Sports Interests: Football, Yoga, Golf, Basketball

Contact Information: ijsosa@mit.edu

Pablo Ampudia
Team Member

Hometown: San Antonio, TX

Education: B.S. Mechanical Engineering, MIT, Class of 2021

Previous Work Experience:

    TSO Logic - Software Engineer Intern
Developed a function in Python that corrected misspelled words or phrases for the purpose of organizing data files that were highly unorganized

    StandardAero - Mechanical Engineer Intern
Managed an engineering and design project in which I produced preliminary designs and conducted a feasibility assessment for redesigning an existing maintenance stand for a new incoming aircraft engine

Skills: MATLAB, Python, CAD, Mechanical Design

Sports Interests: MIT Varsity Tennis, Soccer, Basketball

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