

Arvind Bhallamudi

Designer and Strategist

arvindb.work@gmail.com

arvindbhallamudi.com

Boston, MA

I integrate research, design, and strategy; developing thoughtful products, services and experiences that prioritize socio-environmental needs in human and planetary futures.

EDUCATION

Master of Industrial Design (MID)

Sep 2021 – June 2023

Rhode Island School of Design (RISD), Providence, RI

Thesis Book: Fungi in Flux, Designing Regenerative Materials and Products with Mycelium

Bachelor of Technology, Mechanical Engineering (B.Tech)

Aug 2015 – Dec 2019

Symbiosis Institute of Technology, Pune, India

Final Project: Glaucoma Screening Device for Early Detection of Eye-related Diseases

WORK EXPERIENCE

Design Strategist, Big Dreams Studio

Oct 2023 – May 2025

Providence, RI • Full-time

Worked closely with the CEO, production managers, director of strategy, director of design, and internal and external executive teams across 12 product and service design projects for startups, nonprofits, corporates, small businesses.

- **Rhode Island Foundation:** Headed the research, design and strategy for a two-day convening session to engage 50 of nonprofits in cross-sector collaboration. Organized a co-design workshop with the leadership team and analysed findings to recommend interactive events and capacity building efforts for 400+ attendees.
- **Possibility Ocean'25 Conference:** Conducted qualitative interviews with ocean technologists in New England and created an online Ocean Futures Toolkit with a library of drivers, trends, and future contexts in the blue economy to equip students, educators and professionals with ocean literacy. Part of advisory group of marine biologists, entrepreneurs, policymakers, educators and creatives to deliberate on the role of data in oceans.
- **Xcimer Energy Corporation:** Led the competitive positioning and engagement strategy, and supported the design team with the creation and launch of a website 2.0. I developed science-centered content, chaptered narratives, data visualizations and informative web sections about fusion technology. Articulated the mission and story, developed new content with the language and tone that maintains Xcimer's brand integrity, and simplified investor decks and communication assets for inviting new talent, funders, and public audiences.
- **Collins Aerospace Wingwalker:** Conducted 7 qualitative interviews with pilots, marshalls, turn coordinators and operators in a market discovery project to reduce wingtip collisions and improve efficiency in ground ops. Led the thematic analysis and synthesis of the learnings, and visually mapped insights to highlight user needs. **Collins Aerospace AIX ADAPT™:** Worked with teams to research, design, develop and launch a mobile app for passengers, and a tablet app for flight crew with speech and sign language recognition, and custom controls and interactions for sending service requests through a machine learning and computer vision.
- **Overproof AI:** Led the qualitative research phase, heading 8 interviews with CEOs, regional managers, and salespeople for food and beverage (F&B) brands, understanding user segments, jobs-to-be-done, KPI's and bottlenecks. Executed the analysis and synthesis, built UI component libraries, and streamlined UX workflows focused on AI-driven route-to-market (RTM) strategies that help optimize, track and manage sales targets.

Principal Investigator, MycoType Materials

Sep 2022 – July 2024

Providence, RI • Part-time

- As a spin-off from my Master's thesis, MycoType is an initiative that utilizes local waste streams and fungi to design and fabricate carbon-negative, non-toxic and compostable raw materials, objects and products.
- Launched an open-source website resource with a library of formulations and processes, and conducted a series of workshops and talks students, educators and professionals at the Rhode Island School of Design, Brown University, NMIMS School of Design, Autodesk Research Connections, and EcoLaunch Accelerator.
- The work was supported by the RISD Somerson Sustainability Innovation Fund and Mark Harrison Grant worth ~\$12,000, in collaboration RISD's Nature Lab, CoWorks Interdisciplinary Lab and Industrial Design Department.

Grant Writer, Biodesign Challenge**Apr – May 2024**

Remote • Contract

- Collaborated with the executive director and program manager to understand and articulate a narrative for the nonprofit's vision, mission, goals and programs to accelerate biodesign and biotechnology learning.
- Successfully proposed and secured funding from the STEM Action Grant 2024, worth \$5,000 and compiled a list of 60+ potential grants to apply from the National Science Foundation (NSF).

Assistant Curator, RISD x Hyundai Sustainable Futures Exhibition**Aug - Nov 2022**

Providence, RI • Part-time

- Helped lead a team of six to design the spatial layout of the exhibition, build visual systems, graphic designs and posters, and managed participant logistics for 20+ exhibits, and carried out the execution and launch.
- Crafted the vision and written collateral and narratives for five exhibition themes: Immerse, Observe, Discover, Forge, Deconstruct; applying sustainability perspectives across the venue to engage hundreds of visitors.

Founder, Dimiour Design and 3D Printing**Sep 2019 - Aug 2021**

Mumbai, India • Full-time

- Formed a six-person team and venture providing services in mechanical design and 3D printing, and built systems for operations, sales and marketing from scratch, exploring the market for opportunities.
- Launched distance learning 3D printing education, in a series of three online workshops in partnership with Imaginarium and Autodesk India, delivering 3D printed parts to 34 registered students in a certified course.
- Successfully completed 50+ projects for startups, brands and individuals, helping design, fabricate and deliver 600+ parts across India, along with other mechanical engineering and CAD projects.

Design Lead, Curiosity Gym Education**Mar 2020 - May 2021**

Mumbai, India • Full-time

- Created and conducted courses, workshops and mentorships on design thinking, product design, 3D modeling and 3D printing for 500+ K-12, undergraduate and graduate students at prestigious schools.
- As the design lead, I created and maintained the website interface and experience, and built digital marketing campaigns that boosted traffic across channels, achieving 1st page SEO rankings on Google search.
- Built science exhibits including a double pendulum to demonstrate chaotic motion, a harmonograph based on a 3D-printed gimbal; designed and fabricated 150+ COVID-19 protective equipment donated to KEM hospital.

Industrial Designer, National Institute of Interdisciplinary Science & Technology**June - Sep 2019**

Trivandrum, India • Contract

- Developed the spatial layout, enclosures and CAD models for 4 units: 3D printing, molding, melting, and sand-reclamation as part of an IoT-based SMART foundry that can be conveniently operated by 1-2 personnel.
- Created a intuitive, multi-purpose dashboard to track, control and optimize the unit workflows to reduce errors, improve throughput and turnaround efficiency, and access safety features of the system.

Mechanical Engineering Intern**Jan - July 2018****Biomedical Engineering and Technology Innovation Center, IIT Bombay**

Mumbai, India • Full-time

Worked with different teams of doctors and engineers to design and fabricate and test 3 biomedical devices:

- **Glaucoma Screener:** Created a novel, head-mounted device that is convenient, accurate and portable, and can be used to check IOP (intraocular pressure), preventing deterioration in eye-related diseases.
- **Transfemoral Prosthesis:** Supported the team with design and manufacturing of a parametric prosthesis, comparing conventional Plaster-of-Paris (PoP) sockets with the developed parametric, 3D printed legs.
- **Heart Surgery Tool:** Developed and fabricated a tool to check aortic valve diameters and cut the pericardium tissue to make artificial valves, successfully used in 15+ open heart surgeries at Fortis Hospital, Mumbai.

Industrial Design Intern, Shenoy Studio, IDC School of Design, IIT Bombay**June - July 2017**

Mumbai, India • Full-time

- Worked with local cane craftsmen to co-create a lightweight, flexible yet rigid, eco-friendly 'cane palkhi' (rattan palanquin) that integrates natural materials and native processes with stainless steel components for strength.
- The product reduces the load carried by pilgrim porters by 60%, and is currently in use at sites regarded holy such as Vaishno Devi and Elephanta Caves - improving mobility and enabling locally skilled employment.

PATENTS & PUBLICATIONS

Headgear Ophthalmic Device Symbiosis International University and IIT Bombay, India <i>#WO2020141499 International patent published (WIPO), Indian patent granted</i>	2020
Multi-Directional and Multi-Functional Lighting Assembly Dimiour Design Studio, Mumbai, India <i>#201921050663 Indian patent granted</i>	2019
International Conference on Research into Design, Springer: Design for Tomorrow, Vol III IDC School of Design, IIT Bombay, India <i>Proceedings "Design and Prototyping of a Head-Mounted Ophthalmic Device for Monitoring Glaucoma"</i>	2020
Conference on Indian Patents, Copyrights, Innovations and Startups Pimpri Chinchwad College of Engineering And Research, India	2020
National Conference of Indian Association of Assistive Technologists Bhubaneswar, India <i>Proceedings "Parametric Design and Hybrid Fabrication Process of Above-Knee Prosthesis"</i>	2018

TEACHING EXPERIENCE

Graduate Instructor, RISD CoWorks Research Lab Providence, RI • Part-time	Sep 2022 - June 2023
<ul style="list-style-type: none">Conducted 100+ trainings and consultations for team members, students and faculty on 3D printing, laser cutting and vacuum forming in the makerspace, and managed routine lab maintenance and checks.	
Teaching Assistant, RISD Global Biodesign NYC New York City, NY • Full-time	Jan - Feb 2023
<ul style="list-style-type: none">Assisted with course planning, curriculum design, and organization during a five-week Wintersession travel course at New York City and conducted a session on designing fungi and algae-based materials.	
Environment, Climate and Sustainability Liaison, RISD Division of Architecture and Design Providence, RI • Part-time	Feb - May 2023
<ul style="list-style-type: none">Organized on-campus events, and worked with climate-based student groups and clubs to promote, align and accelerate sustainability practices and projects across departments.	
Technical Assistant, RISD x Hyundai Tech Landscapes Studio Providence, RI • Part-time	Feb - May 2022
<ul style="list-style-type: none">Supported participants in Tech Landscapes studio with various sensing and media equipment: macropods, drones, microphones, GPS and weather station used for measuring environmental impacts in projects.	
Biomaterials Instructor, RISD Edna Lawrence Nature Lab Providence, RI • Part-time	Feb - May 2022
<ul style="list-style-type: none">Conducted weekly trainings for students, faculty and staff; experimented with multiple biomaterial formulations, and designed a labelling system which was applied to the material library of 100+ materials.Assisted faculty and students in the Digital Ceramics Studio and Foundation Studio through 3D printing and biomaterial formulation workshops, along with mentorship for their projects.	
Graduate Assistant, RISD Industrial Design Department Providence, RI • Part-time	Sep - Dec 2021
<ul style="list-style-type: none">Conducted trainings for 3D printing and laser cutting, created spatial layouts of the studio and makerspace, and assisted the graduate department head and graduate students in programming throughout the semester.	

SKILLS

Research Methods

Ethnographic Research | Qualitative Analysis | Usability and Heuristics | Participatory Design | Market Research | Data Analysis | Visualization and Synthesis | Mind Mapping | Copywriting | Stakeholder Communications

Miro · Notion · MS Office · Google Analytics

Industrial Design Engineering

Sketching | CAD | CAE | Rendering | Mechanical Design | Rapid Prototyping | 3D Printing | CNC Machining | 3D Scanning | Laser Cutting | Molding | Vacuum Forming | Circuit Design and Microcontrollers

Solidworks · Fusion360 · Rhino · Blender · Keyshot · Meshmixer · Cura

Digital Experience Design

Information Architecture | Storytelling | Content Strategy | Interaction Design | Wireframing | UX/UI Design | Performance Testing | A/B Testing | Accessibility (WCAG compliant) | Digital Marketing (SEO, SEM, SMM)

Adobe Suite · Figma · Wix · Wordpress · Shopify · Audacity · Ableton Live

COMMUNITY & VOLUNTEERING

Researcher, Biodesign Challenge

Aug - Dec 2023

Providence, RI · Part-time

- Curated a resource library of 200+ research papers, articles and learning resources across industries of energy, materials and food, focusing on biologically-inspired climate solutions, and highlighting key insights.

Board Member (Finance Manager), RISD IDSA Chapter

Feb - June 2022

Providence, RI · Part-time

- Managed event logistics, budgets, bills of materials and partnerships, working with the RISD IDSA team to execute 'RISD Make-a-thon' 2022, a one-day hackathon focused on making creative objects.

Founding Member, Design X Health

Nov 2021 - Dec 2022

Providence, RI · Part-time

- Worked with RISD, Brown University and Alpert Medical School, managed industry partnership projects, with RI Department of Corrections for opioid rehabilitation, leading the design and launch of a resource website.

HONORS & AWARDS

Research Advisor, Possibility Ocean Conference

Mar 2024 - Present

Panelist and Contributing Expert, EcoLaunch Accelerator

Nov 2024 - Jun 2025

Speaker, Autodesk Research Connections

Aug 2023

Principal Investigator, Somerson Sustainability Innovation Fund

Sep 2022 - June 2023

Principal Investigator, Mark Harrison Grant

Sep 2022 - June 2023

RISD Design Research Award, Industrial Design Department

June 2023

Speaker, Brown-RISD Innovation Community (BRIC)

Nov 2022

RISD Fred M Roddy Scholarship

Mar 2022

RISD Graduate Fellowship

2021-22, 2022-23

Corona Design Challenge Award, IDC School of Design

May 2020

Most Distinguished Paper Award, ICoRD

Dec 2020

Limca National Record, Rubik's Cubing

2013