

Contact

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(LinkedIn)

Top Skills

ISO 14040

ISO 14044

Intellectual Property

Certifications

Life Cycle Assessment: Quantifying Environmental Impacts

Industrial Internet of Things: From Theory to Applications

EIT Engineer Certification

Industrial Internet of Things: From Theory to Applications

Life Cycle Assessment certification

Honors-Awards

2013 AIGA Fellow

2012 Eisenhower Fellow

Sagmeister Exposition, Louvre

Grammy Award Nomination

Notable Design of the Year

Publications

"Tracking Growth by Design"

"SPARKcon: The Triangle's Creative Showcase"

"Career Ideas for Teens in Manufacturing"

"Typo is Web Page's Windfall"

Letter to the Editor: NC Marriage Amendment Proposal

Patents

Woven tape adjusting fastener

Methods and apparatus for detecting compounds in liquids.

Cap for a container.

Buckle

Aly Khalifa

Positive Innovation & Entrepreneurship Expert | Consultant & Fractional Exec | Circular Economy, Climate-Tech & Sustainable Manufacturing | 40+ Patents | Eisenhower Fellow

Raleigh, North Carolina, United States

Summary

I'm a global innovation leader and fractional executive with 25+ years at the intersection of circular economy, climate tech, and sustainable product innovation. My work spans startups, Fortune 100s, and governments—helping organizations move from sustainability commitments to market-shaping impact.

With a background in mechanical engineering, industrial design, and entrepreneurship, I've founded and led multiple ventures—including Lyf Shoes, Designbox, and Oceanworks—while earning 40+ patents and recognition as an Eisenhower Fellow. Along the way, I've launched award-winning innovations in wearables, sustainable packaging, and advanced manufacturing.

How I create impact:

- Translate complex sustainability goals into viable, scalable products and strategies
- Guide climate-tech ventures from prototype to commercialization
- Apply Cradle to Cradle, LCA, and design-for-disassembly to real-world roadmaps
- Build closed-loop supply chains and modular systems at scale
- Facilitate executive impact labs to align vision, strategy, and measurable action

I work with founders, boards, corporates, VCs, and multilaterals who want to accelerate their sustainability journey without sacrificing speed, innovation, or growth.

Because the next decade demands more than commitments—it demands solutions that scale.

Based in Raleigh, NC | Available for fractional executive, advisory, and consulting roles

Device, systems, and methods for holding objects

Reach out if you're building for people, planet, and possibility

Experience

Positive Company

CoFounder, Chief Innovation Officer

November 2023 - Present (2 years)

Raleigh, North Carolina, United States

Building on 30 years of global innovation work across a wide spectrum of product manufacturing and sustainability expertise to focus on projects that bring positive change. Our work is at the intersection of design innovation, real world manufacturing and live sustainability metrics. Our mission is to provide innovative thinking in circularity and sustainability -including actionable carbon budgets and accounting. Design Planet Positive!

Universal Trim Supply Co., Ltd

Vice President of Innovation [fractional]

January 2025 - Present (10 months)

Taipei, Taipei City, Taiwan

- Leading sustainable innovation on materials, processes, and new products for the largest sporting goods brands.
- Collaborating with cross-functional teams to develop cutting-edge solutions for apparel and footwear.
- Expanding the unique LiveLCA platform to provide designers with direct feedback on their designs per PO.
- Championing the design and engineering of the Sealvax brand to help prevent food waste in the home.

Eisenhower Fellowships

NC Chapter Chair

August 2024 - Present (1 year 3 months)

Raleigh, North Carolina, United States

Convening the local Eisenhower Fellows along with coordinating key visits for international fellows who visit our region.

MBDC

Chief Operating Officer

January 2023 - November 2023 (11 months)

Charlottesville, Virginia, United States

Interim role to lead this top assessor across a wide variety of operations in their work for Cradle to Cradle Certified® projects. This includes process improvements, technological upgrades, structuring work with clients, and strategizing our collaborations with the Cradle to Cradle Products Innovation Institute. This work neatly dovetails with my position as CTO for McDonough Innovation where we take brands and technologies through a Design Positive framework, preparing them for a C2C Certified® portfolio.

McDonough Innovation

10 years

Chief Technical Officer

February 2022 - November 2023 (1 year 10 months)

Charlottesville, Virginia Area

Working with corporate teams worldwide to unite design, materials and engineering innovation with the latest in sustainability thinking. Focus is on leading Cradle to Cradle strategies for optimizing products and packaging for safe use in the circular economy. Includes continuous development of reference libraries and systems to measure positive impact.

Director of Design and Engineering

2013 - 2022 (9 years)

Working with brand leaders on technical solutions to sustainable innovation.

Plastic Collective

Innovation Director

March 2020 - February 2022 (2 years)

Raleigh, North Carolina, United States

Leading the team in developing plastic recycling technologies and programs worldwide. Includes pioneerinng innovative systems to capture plastic credits, business model refinement, supply chain development and scaling the enterprise. This builds upon the work as Project Director of a three-year grant awarded to Plastic Collective by Cooperative Research Centre Projects (CRC-P). The mission of the grant is to fight the threat of ocean plastic in remote communities and oceans and will enable the group to expand operations of setting up micro-recycling factories in remote communities across the world. These operations are housed within a shipping container and can be deployed into waste collection areas.

The CRC grant enables the group to build improved pilot units in Australia and bring them online domestically and internationally in remote and regional

communities. The effort calls for a comprehensive set of additional activities, including embedded job-training, facility certification, software development and inclusion into the circular economy. To help drive demand, the group will also be exploring waste-to-fuel systems and manufacturing items in demand by the same community.

Designbox LLC

Chief Innovation Officer, Co-Founder

January 2003 - February 2022 (19 years 2 months)

Raleigh, NC

Designbox is a global innovation house working with clients around the world to turn great ideas into impactful products, brands and experiences. We typically partner with clients to be their outsourced "Department fo Innovation" on key initiatives. Our ingredients are design strategy, creative process and inventive culture. Aly and Beth Khalifa started the original entity, Gamil Design, in 1995 and the consulting services was rebranded as Designbox in 2014.

iAccelerate

Expert in Residence

January 2019 - April 2020 (1 year 4 months)

Wollongong, NSW, Australia

Educating entrepreneurs on Design Thinking, Sustainability, and Advanced Manufacturing with a particular eye on nurturing the growing Social Impact space.

The Outdoor Recreation Group

9 years 8 months

Chief Technical Advisor

April 2019 - December 2019 (9 months)

Greater Los Angeles Area

Advising on design, engineering and manufacturing of sporting goods product line.

Director, Design and Engineering

May 2010 - April 2019 (9 years)

Managing partnership of Designbox with TORG for design, engineering, and production of all hard goods, components and trims for this major provider to the sporting goods industry. Responsibilities include managing and directing: design, mechanical engineering, CAD files, costing, materials research, international sourcing, quality control systems and staff, and manufacturing

engineering in vendor factories. Includes invention development to launch innovative products for the sporting goods market across several brands.

Oceanworks

Chief Innovation Officer, Co-Founder

November 2017 - June 2019 (1 year 8 months)

Santa Monica, California

Cofounder of the enterprise to create design innovation for brands to use harvested debris in high quality products. Responsibilities span from spearheading design concepts with brands and their teams through building a robust and comprehensive supply chain and delivering qualified finished parts.

North Carolina State University

Social Entrepreneur-in-Residence

September 2016 - January 2019 (2 years 5 months)

Raleigh-Durham, North Carolina Area

As Social Entrepreneur-in-Residence, Aly has helped lead a team of campus and community stakeholders to create and execute the Institute's Social Innovation Fellows program, an initiative to support students working on inventions and ventures that are seeking to create social impact. He has provided workshops and mentoring to NC State students from both STEM and Humanities. The program has had some of the most talented and diverse students at NCSU, and has garnered significant praise and attention from the leadership at NCSU.

LYF Company

CEO and Founder

May 2012 - January 2019 (6 years 9 months)

Raleigh-Durham, North Carolina Area

Love Your Footprint!

LYF Shoes is a company dedicated to making footwear for a better planet. Utilizing 3D printing and decentralized manufacturing, Lyf offers a unique value proposition to integrate job creation, customer service and sustainability into a new paradigm for the Circular Economy.

Friends of the North Carolina Museum of Natural Sciences

Board of Directors

January 2012 - December 2017 (6 years)

Raleigh-Durham, North Carolina Area

Established in 1979, Friends of the North Carolina Museum of Natural Sciences is a private, nonprofit group whose sole mission is to benefit the Museum's educational programs, exhibits and research through membership, fundraising and advocacy.

Visual Art Exchange

Board of Directors

June 2010 - December 2016 (6 years 7 months)

After donating SPARKcon to this well-established and successful grass-roots organization, joined the Board to steward an easy transition and lend a fresh perspective to the team.

SPARKcon

Co-founder

January 2006 - December 2016 (11 years)

Raleigh-Durham, North Carolina Area

Organization of diverse creative people in the local community dedicated to making the Triangle the "Creative Hub of the South." Spark Con integrates technology, art, independent business and inclusivity as a "creative ecosystem." Annual event is in September.

Gamila Products

Co-Founder

January 2001 - July 2014 (13 years 7 months)

Raleigh NC

Gamila was founded by Aly and Beth Khalifa to focus on innovative gourmet products for the design-minded consumer. Successful products include the Kickstarter hit, Impress Coffee Brewer, and the Teastick. This business was acquired by Seventh Generation Ventures in July of 2014. Aly continued to develop products with this new partner. Since then Unilever acquired Seventh Generation's business.

Gamil Design, Inc.

Owner

October 1995 - July 2014 (18 years 10 months)

Experts in launching products and brands internationally, Gamil has worked with some of the biggest brands in the world to deliver new product technologies, consumer products and branding approaches. After the successful acquisition of Gamila Products, Gamil Design has been folded under the award-winning Designbox business unit.

Eisenhower Fellowships

2012 USA Fellow - Thailand, Philippines, Singapore, Indonesia

January 2012 - December 2012 (1 year)

RDU

Eisenhower Fellowships engages emerging leaders from around the world to enhance their professional capabilities, broaden their contacts, deepen their perspectives, and unite them in a diverse, global community - a network where dialogue, understanding, and collaboration lead to a more prosperous, just, and peaceful world.

My program was designed to help me learn from the best minds in Asia on how design can be a force for good.

Maximus Circus

Producer/Founder

July 2010 - August 2010 (2 months)

Created a first-time circus for Raleigh Wide Open. Creative leadership on vision, scenery, props, costumes and logistics. Worked with AcroEntertainment who did all talent management for acrobatics, aerialists and many fire performers. Became the headline event for the city's biggest festival.

North Carolina State University

Visiting Professor

1996 - 2000 (4 years)

Taught both studio and core lecture courses. Created curriculum, text for Materials & Processes I & II for Industrial Design.

Performance, Inc.

2 years

Designer and Engineer

May 1993 - October 1995 (2 years 6 months)

Carrboro, NC

Design and engineering for accessories, including footwear, gloves, eyewear, packs, and inline skates.

Designer/Engineer

1993 - 1995 (2 years)

responsible for the design, engineering, sourcing, and development of all Performance brand Soft Goods Accessories in the following categories: Packs (bags), Shoes, Glasses, Skates, Skategear, Gloves, Tents, and Cold-Weather

Gear. Workload includes the execution of more than 60 new products a year, with net sales of more than \$8 million. 35 new designs were introduced per year. Was sole liaison with vendors for development, traveling alone to China, Taiwan, and Hong Kong to source, develop, and oversee production.

Education

North Carolina State University

Bachelor's, Product Design Engineering (ME) · (May 1993)

North Carolina State University

BS, Product Design Engineering (ME) · (1986 - 1993)

North Carolina State University

Bachelor's degree, Industrial and Product Design · (May 1990)

North Carolina State University

BED, Product Design · (1986 - 1990)