

Timothy G. Morrissey, Ph.D.

Mechanical Engineering (Materials Science Track), Ph.D.
Mechanical Engineering (Materials Science Track), M.S.
Ceramic Engineering, B.S.

Tim@tgmorrissey.com
+1 (315) 867-7773
tgmorrissey.com
[linkedin.com/in/tgmorrissey](https://www.linkedin.com/in/tgmorrissey)
Boulder, Colorado

SUMMARY

I am a multidisciplinary entrepreneur with extensive experience leading and executing alongside both technical and business teams. My experiences span from five years as the cofounder and CEO of a venture backed robotics company (ArtimusRobotics.com), to content creator ([YouTube.com/tgmorrissey](https://www.youtube.com/tgmorrissey)), to consumer products (SnowVisa.com), to 15 years of highly technical engineering and materials science work (PhD Mechanical Engineering, scholar.tgmorrissey.com). I am equally comfortable sourcing and closing sales, managing a P&L, and going deep on technical problems. Learn about me, my companies, and other projects at tgmorrissey.com.

OBJECTIVE

Leverage my extremely wide breadth of experiences to become a key leader within an organization where cross-discipline collaboration leads to world class results. Ideal role is entrepreneurial and highly autonomous at the intersections of product (technical) and market-fit. The ideal role will realize success in my key strength areas of leadership and people management, vision and goal setting, and resource management.

EXPERIENCE

Co-Founder and Chief Executive Office | Artimus Robotics Inc. January 2018 – April 2023

- 0 to 1 execution across all business units
- Secured over \$5 million in combined grants, investments and revenue
- Raised venture capital seed round
- Won and executed 13 government contracts
- 30+ commercial partnerships
- Shipped 1000+ highly technical physical products
- Negotiated highly favorable technology transfer license for six patents and grew patent portfolio 13 patents
- Led a team of 13 employees to be empowered and fulfilled on a daily basis

2023 Lead Volunteer | Boulder Startup Week May 2023

- Led, curated and assembled Boulder's premiere week long startup community event
- Leveraged extensive professional and personal network spanning venture capital, founders, and academia
- 32 Events, 50+ speakers, 500+ attendees

Owner | Snow Visa September 2021 - Present

- Created a small business that sells a physical good – A snow safety accessory for backcountry skiing
- Sharpened marketing skills by working with niche media and events
- Sharpened sales skills by working with outdoor retailers through wholesale and co-branding relationships

Youtuber January 2017 - Present

- Became strong storyteller and content creator through sharing of personal videography
- Secured and created small paid brand deals and generated \$1000's revenue through partnership program
- Subscribers: 3,710

Post-Doctoral Research Associate | University of Colorado Boulder April 2019 – March 2020

Keplinger Research Group | Self-funded

- Wrote, won and served as principal investigator of \$125,000 grant
- Researched market fit and production process for HASEL actuators (which became Artimus Robotics)

Graduate Research Associate and Laboratory Manager | University of Colorado Boulder August 2015 – March 2019

Keplinger Research Group | P.I. Dr. Christoph Keplinger

- Researched (experimental/physical = hands on) in soft robotics and sustainable energy generation which resulted in high impact three publications (Science and Advanced Materials), One patent, and many talks
- Set up laboratory facility from zero and managed research facility space for team of 10 researchers
- Mentored and managed two masters-level, four bachelors-level and four high school-level researchers

Timothy G Morrissey, PhD

Lead Teaching Assistant | Mechanical Engineering Department at CU Boulder August 2016 – May 2018

- Served as liaison between approximately 40 PhD students per year and the department
- Counseled/advocated for peers through difficult career decisions including high workloads and leaving program

Graduate Research Associate | University of Colorado Boulder August 2013 – August 2015

High Temperature Materials Laboratory | P.I. Dr. Rishi Raj

- Researched way to process ceramic materials in a less energy intensive way (greener) resulting in 1 publication in the premier journal for advanced ceramics
- Gained experience working in big organization and systems though use of synchrotron light sources

Math and ELS Teacher Abroad | Chamonix, France & Chiang Mai, Thailand January 2013 – August 2013

- Traveled and taught my way through big mountains and big experiences before starting graduate school

Research Associate Post-BS | Oak Ridge National Laboratory June 2011 – December 2012

Ceramic Science and Technology Group | P.I. Dr. Andrew A. Wereszczak

- Researched mechanical and thermal properties of advanced ceramic, glass and composite materials for automobiles, armor, and consumer devices resulting in 8 publications and government reports
- Mentored and managed research of 4 high school researchers

Laboratory Assistant | Alfred University September 2010 – December 2010

Whiteware Research Center | P.I. Dr. William M. Carty

- Performed experimental research on the processing of porcelain ceramics
- Led student group to participate in high school recruitment activities for ceramic engineering program

Ceramic Engineering Intern | CoorsTek Inc. May 2010 – August 2010

Ceramic Material Processing Group

- Analyzed the relationship between environmental variables and material processing and explored solutions to mitigate negative effects in commercial processes

EDUCATION

Doctorate of Philosophy | University of Colorado Boulder May 2019

Mechanical Engineering: Materials Science Track

GPA: 3.80/4.00

Thesis Title: *Ionic Systems for Electromechanical Transducers: Energy Harvesting and Soft Robotics*

Master of Science | University of Colorado Boulder August 2016

Mechanical Engineering: Materials Science Track

GPA: 3.57/4.00

Bachelor of Science with Honors | Inamori School of Engineering, Alfred University May 2011

Ceramic Engineering

GPA: 3.65/4.00 *Cum Laude*

Study Abroad | University of Canterbury, New Zealand Summer/Fall 2009

SUMMARY OF SKILLS

- Extensive **leadership** experience throughout career with experience including startups and technical research
- Small business **operator** having built and touched every aspect of a technical hardware business
- Values both **technical** and **business** needs and finds balance between both
- Highly invested in **communities**, network, and **mentors**
- Ability to bring together **individuals from diverse** identities, skill sets, and experiences to realize success
- Lifelong learner and teacher

KEY RESULTS

- Founded and ran 13 person technical hardware company for five years, securing over \$5 million
- Successful in academia - six peer reviewed publication, four proceeding papers, five government reports
- 32 presentations and talks
- Three Patents
- 0 Missed payrolls cycles

Extend Curriculum Vitae continued below

Updated: July 2023

TABLE OF CONTENTS

Mentoring experience	P. 3	Publications – Peer reviewed	P. 5
Continued education	P. 3	Publications – Processed papers	P. 5
Teaching Experience	P. 3	Publications - Government reports	P. 6
Volunteer and academic service	P. 4	Presentations	P. 6
Awards and honors	P. 4	Media	P. 8
Associate Peer Reviewer	P. 4	Business and Management Skills	P. 9
Patents	P. 5	Technical Skills	P. 10
		Hobbies	P. 10

MENTORING EXPERIENCE

Organizer of Hardtech Founder peer group Self	2020 – Present
Ad-hoc community networking in greater Boulder area Self	2020 – Present
Member of Robotics Founder Meetup peer group Self	2020 – Present
Founder of 1st year PhD student mentorship group Department Lead TA	2016 – 2018
Undergraduate project group supervisor 1 st year Engineering Project Class	Spring 2017
Master student supervisor Keplinger Research Group (2 students)	2015 – 2019
Undergraduate researcher supervisor Keplinger Research Group (4 students)	2015 – 2019
High school research experience supervisor CU Science Discovery Program (4 students)	2016 - 2018

CONTINUED EDUCATION

CEO Peer Group Momentum Business Advisors, momentumbc.com	2022 - 2023
Innovation-Crop Customer Discovery Workshop 2X National Science Foundation	2020 - 2021
Venture Capital by Brad Bernthal and Jason Mendelson CU-Boulder (audit)	Fall 2018
Commercialization Academy CU-Boulder hosted by the Technology Transfer Office	2018 – 2019
ZAP!, An NSF i-corps Short Course CU-Boulder in conjunction with LA i-Corp Node	May 2018
Entrepreneurship for Engineering CU-Boulder (audit)	Spring 2018
National School on Neutron and X-Ray Scattering Oak Ridge and Aragon National Laboratory	June 2015
Lead TA Training and Fall Teaching Intensive Graduate Teaching Program, CU-Boulder	May 2016

TEACHING EXPERIENCE

Department Lead TA Mechanical Engineering, CU-Boulder	2016 – 2018
Graduate TA Introduction to Research, CU-Boulder	Fall 2016
Graduate TA Graduate Materials Science, CU-Boulder	Fall 2015
Summer Camp Instructor CU Science Discovery	Summer 2014
Graduate TA Undergraduate Thermodynamics, CU-Boulder	Fall 2013
Online Mathematics and Science Tutor Quexter.Org	Spring/Summer 2014
ESL Teacher The Araya Foundation, Thailand	April – August 2013
Mathematics Teacher Ages 7-14 British Ski Academy, Chamonix France	January – April 2013
Calculus and Physics Tutor Alfred University	2008 – 2011
Substitute Elementary School Teacher Little Falls City School District	2009 –2010

VOLUNTEER AND ACADEMIC SERVICE

Grant Reviewer National Science Foundation, Colorado Advanced Industries	2020 – Present
Boulder Startup Week Organizer	2023 – Present
Case Study and Pitch Competition Subject Boston University	2020 – 2023
Marketing Case Study University of Colorado Boulder Executive-MBA	2020 – 2021
Graduate Student Advisory Committee College of Engineering and Applied Science, CU-Boulder	2016 – 2017
PhD Student Orientation Leader Mechanical Engineering Department, CU-Boulder	2016 – 2017
Graduate Student Representative Mechanical Engineering Faculty Search, CU-Boulder	2015 – 2016
Student Board Member CU Backcountry Ski Club	2015 – 2016
Session Student Chair Graduate Engineering Annual Research & Recruitment Symposium	March 2014
Engineering Group Leader Purple and Gold Days (Recruitment), Alfred University	Fall 2011
Experimental Design Course Ceramic Powder Processing Lab, Alfred University	Fall 2010
Student Club Vice-president Saxon Skiing & Snowboarding, Alfred University	2010 – 2011
Member of Engineering Honor Society Tau Beta Pi, Alfred University	2010
Member of National Professional Ceramic Engineering Society Keramos, Alfred University	2009
Student Volunteer New Zealand Department of Conservation, Quail Island	2009

AWARDS AND HONORS

Department Fellowship Mechanical Engineering Department, CU-Boulder	May 2017
Spotlight on Student Research Mechanical Engineering Department, CU-Boulder	April 2016
Best Talk in Mechanics Session Graduate Engineering Annual Research & Recruitment Symposium	March 2016
Honorable Mention National Science Foundation Graduate Research Fellowship	April 2014
1st Year Best Talk Graduate Engineering Annual Research & Recruitment Symposium	March 2014
Dean's Fellowship CU-Boulder	2013 – 2014
Outstanding Mechanical Engineering Research Potential Fellowship CU-Boulder	2013 – 2014
Dean's List Alfred University	2007 – 2011

ASSOCIATE PEER REVIEWER

Advanced Materials Technologies	Nature Materials	Soft Matter
Applied PhysicsA	Science Robotics	Soft Robotics
Energy Materials	Smart Materials and Structures	Sustainability
Nature Communications		

PATENTS

- [3] Eric Acome, Nicholas Kellaris, Shane Mitchell, **Timothy G. Morrissey**. “**Hydraulically Amplified Self-Healing Electrostatic (HASEL) Actuator Systems for Gripping Applications**”. US Patent App. 17/948,066. 2023. [LINK](#)
- [2] **Timothy G. Morrissey**, Eric Acome, Shane Mitchell,. “**Control of Conveyor Systems Using Hydraulically Amplified Self-Healing Electrostatic (HASEL) Actuators**”. US Patent App. 17/504,464. 2021. [LINK](#)
- [1] Christoph Keplinger, Eric Acome, Nicholas Kellaris, Shane Mitchell, **Timothy G. Morrissey**. “**Hydraulically amplified self-healing electrostatic transducers harnessing zipping mechanism**”. US Patent App. 17/504,464. 2019 [LINK](#)

PUBLICATIONS scholar.tgorrissey.com

Peer Reviewed

- [6] PhD Thesis: **Timothy G. Morrissey**. “**Ionic Systems for Electromechanical Transducers: Energy Harvesting and Soft Robotic**”. The University of Colorado at Boulder. 2019. [LINK](#)
- [5] **Timothy G. Morrissey**, Shane Mitchell, Alexandra Jaros, Eric Ambos, Christoph Keplinger. “**Mechanical to Electrical Energy Conversion with Variable Electric Double Layers**”. *Energy Technology*, 2019, 7, 4, 1801007. [LINK](#)
- [4] Eric Acome, Shane Mitchell, **Timothy G. Morrissey**, Maddison Emmett, Clair Benjamin, Madeline King, Miles Radakovitz, Christoph Keplinger. “**Hydraulically Amplified Self-Healing Electrostatic Actuators with Muscle-Like Performance**”. *Science*, 2018, 359, 61-65. [LINK](#)
- [3] Yue Cao*, **Timothy G. Morrissey***, Eric Acome, Sarah Allec, Bryan Wong, Christoph Keplinger*, and Chao Wang*. “**A Transparent, Self-Healing, Highly Stretchable Ionic Conductor**”. *Advanced Materials*, 2017, 29, 1605099 (**Equal contribution). [LINK](#)
- [2] Jean-Marie Lebrun, **Timothy G. Morrissey**, John Francis, Kevin Seymour, Waltraud Kriven, and Rishi Rishi. “**Emergence and Extinction of a New Phase during On-Off Experiments Related to Flash Sintering of 3YSZ**”. *Journal of the American Ceramic Society*, 2015, 98: 1493–1497. [LINK](#)
- [1] Andrew Wereszczak, **Timothy G. Morrissey**, Charles Volante, Phillip Farris, Robert Groele, Randy Wiles, Hsin Wang, “**Thermally Conductive Epoxy Molding Compounds with MgO-Filler**”. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, 2013, Vol. 3 No. 12. [LINK](#)

Proceeding Papers

- [4] Angella Volchko, Shane Mitchell, **Timothy G. Morrissey**, J Sean Humbert. “**Model-based data-driven system identification and controller synthesis framework for precise control of siso and miso hasel-powered robotic systems**”. 2022 IEEE 5th International Conference on Soft Robotics (RoboSoft), 209-216. 2022. [LINK](#)
- [3] Cosima Schunk, Levi Pearson, Eric Acome, **Timothy G. Morrissey**, Nikolaus Correll, Christoph Keplinger, Mark E. Rentschler, and J. Sean Humbert. “**System Identification and Closed-Loop Control of a Hydraulically Amplified Self-Healing Electrostatic (HASEL) Actuator**”. IEEE International Conference on Intelligent Robots and Systems, Madrid, Spain, 2018. [LINK](#)
- [2] Andrew Wereszczak, **Timothy G. Morrissey**, Mattison Ferber, Kaye Bortle, Elliott Rodgers, Georgiy Tsoi, JM Montgomery, Y Vohra, S Toller. “**Responses of Siliceous Materials to High Pressure**”. *Advances in Ceramic Armor IX*. 2013. Paper 04-01, Issue 5, Vol. 34 [LINK](#)
- [1] **Timothy G. Morrissey**, Ethan Fox, Andrew Wereszczak, Daniel Vuono, “**Low Velocity Sphere Impact of Soda Lime Silicate Glass**”. *Advances in Ceramic Armor VIII*, 2012, Paper 05-07, Issue 5, Vol. 33 [LINK](#)

- [5] Andrew Wereszczak, **Timothy G. Morrissey**, Mattison Ferber, Kaye Bortle, Elliott Rodgers, Georgiy Tsoi, Jeffrey M. Montgomery, Y.K. Vohra, S. Toller. “**High Pressure Responses of Siliceous Materials**”. *Defense Technical Information Center*. 2013. ORNL/TM-2013/4. [LINK](#)
- [4] **Timothy G. Morrissey**, Ethan Fox, Andrew Wereszczak, Mattison Ferber. “**Initial Examination of Low Velocity Sphere Impact of Glass Ceramics**”. *SciTech Connect*. 2012. ORNL/TM-2012/139. [LINK](#)
- [3] Andrew A. Wereszczak, Chad Duty, Daniel Vuono, Hsin T. Lin, Gerald E. Jellison, **Timothy G. Morrissey**, Joseph Angelini, Jon Carberry. “**Promoting Large Grain Formation in Thin Net-Shaped Multicrystalline Silicon Wafers**”. *CRADA Final Report*. 2012. Not publicly available
- [2] **Timothy G. Morrissey**, Mattison Ferber, Andrew Wereszczak, Ethan Fox. “**Low Velocity Sphere Impact of a Borosilicate Glass**”. *SciTech Connect*. 2012. ORNL/TM-2012/60. [LINK](#)
- [1] Andrew Wereszczak, Ethan Fox, **Timothy G. Morrissey**, Daniel Vuono. “**Low Velocity Sphere Impact of a Soda Lime Silicate Glass**”. *Defense Technical Information Center*. 2011. ORNL/TM-2011/259. [LINK](#)

PRESENTATIONS

- [32] “**Panel - SBIR – America’s Seed Fund: Using Government Non-Dilutive Funding to Build your Tech**”. *Boulder Start Up Week*. May 19, 2023
- [31] “**Finding a market and customers for your deep tech. – Panel Discussion**”. *Boulder Start Up Week*. May 19, 2023
- [30] “**Launching Companies Based on University Research. – Panel Discussion**”. *Romanian Delegation in Boulder Hosted by the World Bank*. April 24 2023.
- [29] “**Commercializing Soft Actuators, A Case Study**”. *Boston University*. March 13, 2023
- [28] “**Commercializing Soft Robotics Actuators**”. *University of North Texas Graduate Student Seminar*. November 2, 2022
- [27] “**HASEL Actuators for Automotive Interiors and Smart Surfaces**”. *ITB New Cabin Technologies*. October 6, 2022
- [26] “**Artimus Robotics: A Product of the Boulder Startup Ecosystem**”. *Silicon Flatirons Startup Variety Show*. May 18, 2022
- [25] “**Artimus Robotics: Soft Actuators for Industrial Automation**” *Hannover Messe*. April 12, 2021
- [24] “**Commercializing Soft Robotics Actuators**” *IEEE Cleveland*. March 20, 2021
- [23] “**Artimus Robotics: Life-like motion for next generation robotics and automation**”. *Boulder New Tech Night*. February 13, 2020
- [22] *Innosphere End of Year Company Updates*. December 12, 2019
- [22] *Colorado Office of Economic Development Advance Industries Day*. October 30, 2019
- [21] *CU Boulder Catalyze Accelerator Demo Day*. August 25, 2019
- [20] *Hardware Cup Boulder*. April 4, 2019
- [19] “**Ionic Systems for Electromechanical Transducers: Energy Harvesting and Soft Robotics**”. *PhD Thesis Defense for the University of Colorado Boulder*. February 19, 2019
- [18] “**Artimus Robotics, Life-like Motion for the Next Generation of Robotics and Automation**”. *College of Engineering and Applied Science Bay Area Alumni Event, CU-Boulder*. November 15, 2018

Timothy G Morrissey, PhD

- [17] **“Artimus Robotics, Life-like Motion for the Next Generation of Robotics and Automation”**. *Lab Venture Challenge*, CU-Boulder. November 15, 2018 **[\$125k grant awarded, \$1k Audience choice awarded]**
- [16] **“Communicating Your Research”**. *Graduate Teaching Program*, CU-Boulder. November 2, 2018
- [15] **“HASEL Artificial Muscles”**. *NASA iTech Forum*. October 23, 2018 **[Top 10 national]** [LINK](#)
- [14] **“Communicating Your Research”**. *ME Department Professional Development Program*, CU-Boulder. October 5, 2018
- [13] **“Ionic systems for electromechanical transducers: Energy harvesting and soft robotics”**. *PhD Comprehensive Exam*, CU-Boulder. August 1, 2018
- [12] **“Mechanical to Electrical Energy Harvesting Using Variable Electric Double Layer Capacitors”**. *Materials Research Society Spring Meeting*. April 8, 2018
- [11] **“Soft Robotics, Flash Sintering, and Energy Generation”**. *Undergraduate Seminar Series*, Alfred University. March 15, 2018
- [10] **“Beyond Dielectric Elastomer Generators: Energy Harvesting with Variable Electric Double Layer Capacitors”**. *SPIE Smart Structures + Nondestructive Evaluation*. March 8, 2018
- [9] **“Communicating Your Research”**. *ME Department Professional Development Program*, CU-Boulder. February 2, 2018
- [8] **“How X-Men's Wolverine Inspired Us to Develop a Self-Healing Material for Robots and Electronic Devices”**. *Advanced Design and Manufacturing*, Cleveland. March 29, 2017
- [7] **“TA/RA Logistic Workshop”**. *Mechanical Engineering Orientation*, CU-Boulder. August 24, 2017
- [6] **“Mechanical Engineering Graduate Program Information Session for Prospective PhD Student”**. *Graduate Engineering Annual Research & Recruitment Symposium*, CU-Boulder. March, 2017
- [5] **“Communicating Your Research”**. *Introduction to Research Class*, CU-Boulder. November 1, 2016
- [4] **“TA/RA Logistic Workshop”**. *Mechanical Engineering Orientation*, CU-Boulder. August 16, 2017
- [3] **“Soft Machines: For Renewable Energy and Artificial Muscles”**. *Graduate Engineering Annual Research & Recruitment Symposium*, CU-Boulder. March 3, 2016 **[Awarded talk]**
- [2] **“An Overview of Flash Sintering”**. *Graduate Engineering Annual Research & Recruitment Symposium*, CU-Boulder. March 6, 2014 **[Awarded talk]**
- [1] **“Low Velocity Sphere Impact of a Soda Lime Silicate Glass”**. *36th International Conference and Expo on Advanced Ceramics and Composites*. January 24, 2012

Builder Nation – Podcast

<https://www.youtube.com/watch?v=XEBXk4NvKpQ>

Company Week – Article

<https://companyweek.sustainment.tech/article/artimus-robotics>

Funded in Colorado - Podcast

<https://innosphereventures.org/fundedincolorado-artimusrobotics/>

The Robot Industry - Podcast

<https://therobotindustrypodcast.com/podcast/artimus-robotics-and-hasel-actuation-technology/>

Futurized - Podcast

<https://www.futurized.co/e/soft-robotics/>

Riderflex - Podcast

https://www.youtube.com/watch?v=qA8w737RnMo&feature=emb_title&ab_channel=Riderflex

Soft Robotics – Podcast

https://open.spotify.com/episode/65u9Gu6pqP4Y40DsWHMHGY?go=1&utm_source=embed_v3&t=0&nd=1

Alumni Spotlight – Article

<https://www.colorado.edu/business/deming/news/2020/02/26/alumni-spotlight-timothy-morrissey-new-approach-robotics>

Robotics in Boulder – Article

<https://www.dailycamera.com/2022/01/16/the-robots-are-coming-boulder-valley-emerges-as-center-for-burgeoning-robotics-industry/>

NASA Talk – Video

https://www.youtube.com/watch?v=fI91DNkX7Xk&ab_channel=NASAiTech

Wild Snow - Blog

<https://wildsnow.com/31896/low-tech-safety-with-the-snow-visa/>

The Best Winter Gear for Colorado's Ski Slopes and Beyond – Magazine and online article

<https://www.5280.com/best-gifts-skiers/>

Timothy G Morrissey, PhD

BUSINESS AND MANAGEMENT SKILLS

Leadership

Vision | Vision and Mission definition and promulgation, Strategy, Objective and Key Results (OKR), Key Performance Indicators (KPI), Stakeholder communication (board, investors, customers, employees), Culture and value definition

Team | Hiring, Roles and Responsibility (both employee and cofounder), Organization Charts, Performance Reviews, Team Building, Mentorship,

Resource Allocation | Project management, Product/Feature prioritization, Budgeting (time and cash), Resource monitoring and projections, Balance sheet and Profit & Loss ownership

Fundraising

Equity Investment | Seed stage fundraising, Due diligence and deal negotiating, Pitch competitions, Investor identification and relationship, Board of Director management

Grant | Sourcing, Writing, Budgeting, Contracting, and Managing, Federal Programs (SBIR/STTR), State of Colorado State Programs, Academic Grants

Product-Market Fit

Market analysis | Market sizing, studying, positioning and testing, Competitive analysis, Business model canvas

Customer Discovery | Customer interviews, Value proposition hypothesis formation and testing, Customer mapping

Product development and iteration | Technical planning and management, Product road mapping, R&D road mapping, Feature prioritization and technical focus, Translating technical Results across and out of organization

Technical Sales and Business Development

Customer Identification, Capture, and Relationship | First Sales, Value proposition, Customer visits (inhouse and outbound), Joint Development Agreements, Non Recuring Engineering, Lead generation, Sales pipeline management

Sales Operations | Quotes, Purchase orders, Invoicing, Product and service pricing, Sales collateral

Marketing

Online | Website creation, Content creation, Branding, Search Engine Optimization (SEO), Keyword identification and focus, Google Search Counsel, Google Analytics, Google Ads, Social media,

In-person | Tradeshows identification, attendance and exhibiting, Networking, Outbound lead generation

Communication | Videography, Presenting, Public speaking, Panel moderating, Teaching, Webinars, Whitepapers

Operations

Financial | Cash modeling, Budgeting, Basic accounting, Purchasing, Vendor management

HR | Employee contracts, Interviewing, Job postings, Employee handbook

Facilities | Light manufacturing facility operations, Small capital improvement projects, IT management, System building

Legal

Intellectual Property | Technology Transfer Negotiations and Contract Management, , Patents, Employee IP Assignment and Trade Secret Agreements

Contracts | Joint Development Agreements, Non-Recurring Engineering Agreements, Sales and Development Terms and Conditions, Commercial Real Estate Agreements, Research Agreements, Government grant and contract negotiations and maintenance, Non-Disclosure agreements, Corporate Formation, Equity Financing

Software/Tools:

QuickBooks Online, Ramp, Carta, Expensify, Gusto, Toggl, Trello, Streak, G-Suite (Admin level), Microsoft Word, Excel, PowerPoint, Wix Website Builder, YouTube Studio, Final Cut Pro X, Buffer, Canva, Various government online portals

Timothy G Morrissey, PhD

TECHNICAL SKILLS

Experimental Design and Fabrication

Electronic component control | Data Acquisition, Relays, MOSFETS, Switches, Lights, Microprocessors

Electronic equipment control | Wavefunction generators, Oscilloscopes, Multimeters, Multisources, LCR meters, Laboratory power supplies, High voltage power supplies (10-50kV)

Fabrication and building | Pretotyping, Prototyping, Small scale manufacturing, Screen printing, Laser cutting, 3D-printing, Ovens, Heat Sealing, Polymer joining, Soldering, Electronic fabrication

High temperature furnace building | Temperature control set-up, Custom design, port-holes, camera inclusions

Material Processing and light manufacturing

Elastomer and polymer chemistry | EcoFlex, PDMS, Hydrogels, Research materials

Elastomer and polymer processing | Casting, Molding, Spin, drop, and dip coating

Particle processing | Slurry and suspension handling and control, Ceramic, glass, metal, polymer forming techniques

Environmental furnace control | High temperature (up to 1800°C), Vacuum, Controlled gas, Open air, active cooling

Flexible electronic processing | Screen and stencil printing, heat sealing, joining, liquid filling, sewing, web handling

Manufacturing ceramic production | Plasma arc lamp processing, Industrial scale milling, spray drying, pressing

Imaging

Scientific photography | Photograph camera and lenses, videography, composition, lighting

Technical imaging tools | Optical microscopy, stereoscopy, Scanning acoustic microscopy, Scanning electron microscopy, Digital microscopy (Keyence), Profilometry (Veeco)

Physical testing and characterization

Mechanical Testing | Mechanical materials testing (Instron), Static micro testing (Zwick/Roell), Low velocity spherical impacting Shear testing (Nordson Dage), Laser shock peening impact, Diamond anvil cell testing
Acoustic emission analysis, Fractography

Characterization | Glass surface stress meter (Orihara), Thermal constant analyzer (Hot Disk), Zeta-Potential Measurement, Energy-dispersive X-ray spectroscopy. Spectroscopy. Thermogravimetric Analysis. X-ray Diffraction Analysis. User operation of synchrotron, Particle characterizing (Brunauer, Emmett and Telle (BET), Microtrac, Sedigraph)

Computer

Images | MATLAB, Adobe Lightroom 6, Apple Final Cut Pro X, Adobe Photoshop, GIMP 2.0, ImageJ

Data analysis | MATLAB, Labview, Microsoft Excel, Python

Controls | MATLAB, Labview

Drawing | SolidWorks, CorelDraw, Power Point, Appel Freeform

HOBBIES

Youtube videos | [youtube.tgmorrissey.com](https://www.youtube.com/tgmorrissey)

Restoring vintage truck camper

Skiing every month of the year