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## **Education**

**Duke University** Durham, NC

MEDICAL DOCTORATE Aug 2022 - Present

- · Second year student beginning clinical rotations.
- Armstrong Scholar pursuing medical humanities concentration.

**Duke University** Durham, NC

B.S. IN MATHEMATICS AND B.S. IN NEUROSCIENCE

Aug 2016 - May 2021

· Cumulative GPA of 3.96.

#### **Honors & Awards DUKE AWARDS**

Apr 2023 Chancellor's Fellow, Duke University School of Medicine Durham, NC May 2020 Phi Beta Kappa, Junior Inductee, Duke University Durham, NC 2016-21 Dean's List with Distinction and Dean's List, Duke University, Every Semester Bar 1 Durham, NC May 2019 Summer Neuroscience Fellow, Duke University Durham, NC May 2019 Student Marshall, Duke University Graduation Durham, NC

## Courses, Publications & Active Grants.

#### Center for the Advancement of Science in Space and International Space Station

Houston TX

PROJECT LEAD - SPACE MEDICINE DOCUMENTATION

Jul 2023 - present

- Applied for and received grant worth over \$80,000 to provide new educational modules for the Space Medicine Coursera by year 2027.
- Expansion of course is slated to improve diversity and accessibility of space medicine by engaging under-represented and younger learners.
- Will script, storyboard, and practice lectures with astronauts for them to record in Houston.
- Will travel to Houston, Bay Area California and Cape Canaveral to record lectures on NASA bases.

**Course: Space Medicine** Durham, NC

**DUKE UNIVERSITY COURSERA PLATFORM** 

Jul 2021 - Present

- · Scripted, recorded, and directed six weeks of videos exploring medicine in space with over 8,000 enrollments to date.
- · Developed learning assessments, managed guest lecturers, and ran live sessions for the 250+ students in the first cohort, summer 2021.
- · Opened course up to students outside of the Duke network with Duke Learning Innovation for anyone to be introduced to the field.

#### **Paper: Stereotactic and Functional Neurosurgery**

San Francisco, CA

CT AND MRI IMAGE FUSION ERROR: AN ANALYSIS OF CO-REGISTRATION ERROR

Feb 2021

- · Second name author for quantifying the error in co-registration of two medical imaging formats.
- · Collected data, ran statistical analysis, and verified the existence of a bias in the auto-merged function.
- Publication is available at: https://doi.org/10.1159/000511114

#### Course: Space Health 101

Duke University Aug 2020 - May 2021

DUKE UNIVERSITY AND BAYLOR COLLEGE OF MEDICINE

· Taught undergraduate seminar for Duke students to learn about the health hazards and practice of medicine in the space environment.

- · Integrated physics demonstrations, virtual reality simulations, and medical case studies for socially distant learning. · Hosted guest lectures from Duke Medical Center, NASA Johnson Space Center, and the United States Air Force.
- · Recorded lectures from House Course available on the TRISH Orbit Platform for anyone in the world to enjoy the lectures.

## Recent Work & Research Experience

### Spine Group, Duke Neuroradiology

Durham, NC

MEDICAL STUDENT RESEARCHER

Jan 2023 - present

- Received IRB approval to create and manage world's largest CSF Leak Disorder database using records of patient at Duke.
- Leading three undergraduate students to organize database while on clinical year.

## **Tietronix Software, Inc.**

Houston TX

SOFTWARE DEVELOPER AND SYSTEMS ENGINEER

Jun 2021 - Present

- · Work on a variety of NASA, Air Force, and hospital contracts to understand and protect human health in extreme environments.
- Creating instructions and gestures in augmented reality for autonomous deep space imaging and surgery medical procedures.
- Mapped earth and space communications as a systems engineer for NASA's Flight Operations Directorate.
- Modeled human physiology and response to high energy stimuli for the US Armed Forces' Tri-Service Research Laboratory.
- Developed virtual reality training modules and software for astronaut, surgeon, and first responder medical education.

Non-Profit Work

**DukeCOMIDA** 

CO-FOUNDER AND PRESIDENT Apr 2023 - present

- · Co-created a non-profit that provides nutritional assistance to pregant Hispanic women who are at risk for gestational diabetes.
- · Co-wrote and received over \$30,000 in grant funding from the Chancellor's Office of the Medical School.
- · Connected Duke University School of Medicine to The Durham Community Food Pantry to bring in over 100 new student volunteers.
- · Have position in Durham Community Food Pantry leadership and coordinate monthly mobile food deliveries.

#### **Duke University School of Medicine: Student Faculty Show Musical**

Durham, NC

Dec 2022 - Mar 2023

Durham, NC

PRODUCER AND TREASURER

- · Worked with departments and local companies to raised over \$30,000 for Families Moving Forward
- · Contributing to storyboard and script annual for school musical with brief cameo.

#### Students for the Exploration and Development of Space (SEDS)

National Non-Profit

CHAPTER EXPANSION MANAGER

Nov 2021 - Present

- · Oversee the onboarding and development of new US-based chapters, with emphases on high school and HBCU recruitment.
- · Started and chair fortnightly access meetings to ensure all students can find their voices in space.
- · Working with Bethesda Games to fund over \$10,000 new initiatives to encourage access for minority students in space.

# Public Engagement & Media Appearances.

**TEDxDuke Talk** Durham, NC

"What Space Medicine Taught Me About Science Communication"

Feb 2023

· Opening speaker at the 2023 TEDxDuke Conference

· Provided a talk bridging the gap between scientific research and outreach and egagement.

#### SEDS SpaceVision 2022 Invited Speaker

Chicago, Il

SPACE MEDICINE PANELIST

Nov 2022

- Invited speaker with travel paid at the largest undergraduate space-industry conference.
- Introduced undergraduates to field of aerospace medicine.

**Spherical Cows Podcast** Houston, TX

CO-CREATOR AND HOST Sep 2021 - Present

- Created, recorded, and edited two seasons of space medicine interview podcast.
- Currently releasing second season and recording third.
- Show debuted to Apple Podcast's Top 10 Science Podcast in first season.

On Orbit Podcast Houston, TX

GUEST - "EXPLORING SPACE MEDICINE WITH DOMINIC TANZILLO"

Aug 2021

• Start of podcast career hoping to encourage students to engage with the field of space medicine.

# **Medical School Leadership**

#### The Hippocratic Society Duke University - Durham

FOUNDER AND PRESIDENT OF DUKE'S CHAPTERS

Feb 2023 - Present

- Founded Duke's Chapter of The Hippocratic Society, a group dedicated to medical humanities.
- · Wrote several articles on integrating the virtues into medical student life including one on Innocence.
- · Serving on public affairs committee for helping the group face public audiences including designing the logo.

### **Interventional Radiology Interest Group**

Duke University - Durham, NC

**EXECUTIVE BOARD MEMBER** 

Sep 2022 - Present

- Helped recruit new students to the emerging field of interventional radiology.
- · Co-sponsored events with the orthopedic surgery club to increase recruitment for more students.

#### Wilderness, Austere, and Extreme Medicine Interest Group

Duke University - Durham, NC

**EXECUTIVE BOARD MEMBER** 

TREASURER

Sep 2022 - Present

Sep 2022 - Present

- Hosted events with run, rock climbing, and hiking clubs to introduce students to wildnerness medicine.
- Worked with Duke Hyperbarics and Duke Life Flight to provide tours of their respective facilities and allow student shadows.

**Duke HealthCARES** Duke University - Durham, NC

Managed budget of only student group to support formerly incarcerated men to receive healthcare.

- · Created budget and plan for Chancellor's Award Fellowship to receive over \$4,000 of funds in first year.

AUGUST 17, 2023 DOMINIC P. TANZILLO · RESUME