

# CAMERON YOUNG

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**SUMMARY:** Proven history of translating medical research with real-world impact across national and international settings. Passionate about improving innovation and equity in pediatric healthcare and committed to advancing solutions that ensure unbiased access to cutting-edge therapies for those who need them most. Skilled in bridging research and practice through healthcare innovation, collaboration, and strategic leadership.

## EDUCATION

- May 2027 **Doctor of Medicine**, Harvard Medical School, Boston, MA (expected)
- July 2023 **Master of Philosophy** in Medical Sciences (Cancer Research UK Cambridge Institute), University of Cambridge, Cambridge, United Kingdom  
*Thesis: Development and Validation of a Reliable DNA Copy-Number-Based Machine Learning Algorithm for Breast Cancer Integrative Cluster Classification*
- May 2022 **Bachelor of Science** in Chemical Engineering and Biochemistry, Northeastern University, Boston, MA, GPA: 3.95/4.00

## AWARDS

- 2024 Point Foundation – Professional Development Scholarship
- 2022 Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry – Charles C. Shepard Science Award
- 2022 Winston Churchill Foundation of the United States – Churchill Scholarship
- 2021 Barry Goldwater Excellence in Education Foundation – Goldwater Scholarship

## EXPERIENCE

- Ecotera Health Boston, MA  
Co-Founder and Director of Research June 2024 – Present
- Lead research and development at an early-stage startup tackling the health consequences of microplastic pollution, driving the creation of home water detection kits and diagnostics, while identifying critical research gaps and aligning product innovation with market and environmental needs.
  - Secured over \$75,000 in grant funding by authoring proposals leveraging AI-powered diagnostic platforms and earned acceptance into Rally Accelerator and Harvard i-Labs, gaining mentorship, pilot opportunities, and business model development support to enhance social and environmental impact.

- AcceptedTogether Remote  
Medical School Admissions Consultant January 2024 – Present
- Deliver personalized consulting to 20+ medical school applicants, guiding application strategy, essay refinement, and interview preparation to optimize candidate success.

- Medically Engineered Solutions in Healthcare (MESH) at Mass General Brigham Innovation Boston, MA  
Healthcare Innovation Researcher September 2023 – Present
- Spearhead the design and development of novel large language model (LLM)-based tools to optimize medical decision-making, address provider bias, and improve predictive diagnostics, driving innovation in healthcare and medical education with findings published in *Pain* and the *American Journal of Medical Genetics*, among others.
  - Published 3+ open-source tools for translation into clinical practice, including a custom LLM integrated with the Human Phenotype Ontology, improving diagnostic accuracy for rare pediatric diseases by >10% compared to existing methods.
  - Engineered a novel natural language processing and machine learning algorithm to predict scientific journal citation trends and mainstream media impact, bridging scientific research with broader market applications.

### Caldas Lab of Cancer Research UK Cambridge Institute

MPhil Candidate in Medical Sciences

Cambridge, United Kingdom

September 2022 – July 2023

- Developed and validated a novel, platform-independent machine learning algorithm for the classification of breast cancer tumors into integrative cluster subtypes using genomics data for precision oncology.
- Achieved a >10% improvement in classification accuracy compared to existing gold standard methods, enhancing clinical applicability and translational potential with findings published in *Scientific Reports*.
- Published the algorithm as an open-source R-based tool (*CopyClust*), empowering clinicians and researchers globally to analyze and characterize breast cancer datasets with greater precision.

### Randolph Lab of Boston Children's Hospital

Clinical Data Analyst in Critical Care Medicine

Boston, MA

June 2020 – July 2023

- Coordinated a CDC-funded public health surveillance registry to analyze and track demographics, symptoms, complications, and clinical characteristics of severe COVID-19-related illnesses in children and adolescents, collaborating with 70+ pediatric hospitals and CDC officers.
- Communicated biweekly with CDC public health officials to share key findings, providing actionable insights that shaped public health messaging and informed resource allocation during the COVID-19 pandemic.
- Influenced global standards of care for Multisystem Inflammatory Syndrome in Children through rigorous prospective and retrospective analyses, contributing to diagnostic and treatment protocols adopted by the WHO and CDC.
- Executed advanced epidemiological and statistical analyses on a dataset of 10,000+ patients, providing insights that helped identify, diagnose, and treat COVID-19-related illness in children. Findings published in high-impact journals including *Nature*, *the New England Journal of Medicine*, *Journal of the American Medical Association*, *Pediatrics*, among others.

### Langer and Traverso Labs of MIT and Brigham and Women's Hospital

Clinical Data Analyst in Radiation Oncology

Boston, MA

January 2020 – September 2021

- Manufactured a novel class of personalized radioprotective devices for mitigating healthy tissue damage in cancer patients undergoing radiation therapy, reducing harmful exposure and injury by >30%. Findings were published in *Advanced Science* and translated into a phase I clinical trial for head and neck cancer.
- Discovered previously unknown drug-drug interactions in the gastrointestinal tract using a Python-based machine learning model trained on drug-transporter relationships, validating predictions through ex vivo assays, pharmacokinetic measurements, and patient data. These findings, published in *Nature Biomedical Engineering*, demonstrate potential to expedite drug development and enhance drug safety evaluation.

## ACTIVITIES AND INTERESTS

**Leadership and Advocacy:** Co-President, Pediatrics Interest Group & Lifestyle Medicine Interest Group at Harvard Medical School (2023–Present); Medical Student Representative, Massachusetts Chapter of American Academy of Pediatrics & Massachusetts Medical Society Bylaws Committee (2023–Present); President, American Institute of Chemical Engineers, Northeastern University Chapter (2019–2020).

**Volunteering:** Inpatient Volunteer & New Volunteer Trainer, Boston Children's Hospital (500+ hours, 2017–2022); Emergency Medical Technician, Boston Public Health Commission (200+ hours, September 2019–June 2020).

**Editorial and Writing:** Managing Editor, *Harvard Medical School Review* (2024–Present); Associate Editor (2023–2024); Staff Writer, *Northeastern Science Magazine* (2018–2021); Peer Reviewer for 10+ scientific publications.

**Hobbies:** Passionate about health and fitness, running – including the 2024 Boston Marathon, CrossFit, music and concerts, and exploring cultures through travel to 25+ countries while living abroad in the UK.

## PUBLICATIONS

My complete list of 40+ peer-reviewed publications with 3,000+ citations can be found on my Google Scholar profile: <https://scholar.google.com/citations?user=VcmDKTcAAAAJ>.