Thussenthan Walter-Angelo: Curriculum Vitae

E: t.walterangelo@gmail.com | M: +1 (717) 743-2777 | www.linkedin.com/in/thussenthan

EDUCATION HISTORY

Penn State College of Medicine, Hershey, PA — August 2025 - Present

- Master of Science Degree in **Biomedical Sciences**

Princeton University, Princeton, NJ — September 2020 - May 2024

- Bachelor of Arts Degree: Major in **Molecular Biology** with Minors in **Computer Science** and **Neuroscience** — Cumulative GPA: 3.74
- Honors: Elected to membership in Sigma Xi Honor Society (based on achievement in scientific research and academic standing).

Cedar Cliff High School, Camp Hill, PA — August 2016 - June 2020

- Honors: AP Scholar with Distinction, National Merit Commended Scholar, Nine AP Classes, Two Dual-Enrollment Courses at HACC, Played the saxophone (Five auditioned groups over nine years) — Weighted GPA: 102.477; Class Rank: 1 out of 270

WORK AND INTERNSHIP EXPERIENCE

Research Technologist - Medical Sciences — Penn State College of Medicine — September 2024 – Present

With Dr. Giselle L. Saulnier-Sholler, MD, MSc, in the Department of Pediatrics, Division of Hematology/Oncology

- Managing pediatric oncology biochemical laboratory research for the Beat Childhood Cancer Research Consortium, including processing human and mouse tissues to establish cell lines and xenograft models, developing methodologies, conducting experiments, and performing analyses for basic science and clinical projects.
- Providing technical support to investigators and the research team, training staff on equipment use and analytical procedures, and computationally analyzing data for publications in human and animal research.

Senior Thesis Researcher — Princeton University — August 2022 – May 2024

With Professor Samuel S.-H. Wang, PhD — Princeton Senior Thesis Advisor

- Worked on a project that used mouse models, molecular tools, and computational analysis to study the effects of upregulating norepinephrine, activated through optogenetic means, within the locus coeruleus and deep cerebellar nuclei on animal motor function and behavior, specifically reflex time, to understand the mechanisms of autism for my senior thesis lab research work.
- Devised novel techniques for rodent surgeries to inject viral vectors for genetic manipulation, did eyeblink conditioning paradigm training for mouse cohorts, performed staining and microscopy on mouse brain tissues, and statistical data analysis.
- **Princeton Senior Thesis:** "Effects of Modulating Locus Coeruleus Noradrenergic Input to Cerebellar Interpositus Nucleus on Eyeblink Conditioning Performance"

Neurosurgeon and General Surgeon Clinical Shadowing

With Dr. Charles S. Cobbs, MD, and team in Swedish Hospital Cherry Hill Campus, Seattle, WA [Advanced Neurosurgery] — January 2023

With Dr. G. Rajiv Nirmalasingham, MBBS, MS, MRCS, FMAS in Tellippalai Base Hospital, Sri Lanka [General Surgery] — January 2022

- Observed surgeries in the operating theater, patient wards/units, consultant surgeon rounds, case clinical appointments, treatments, medical teachings, research, patient examination diagnoses, ward drugs, equipment, protocols, and procedures.

BCMP Summer Scholar Program — Harvard Medical School — June 2022 – August 2022

With Dr. Richard I. Gregory, PhD, at Boston Children's Hospital, Dana-Farber Cancer Institute, and Harvard Stem Cell Institute

- Studied the mettl8 protein and its m3C tRNA modification to discern the molecular mechanics of cancer metastasis and mitochondrial biogenesis in differing tumor types to find potential cancer treatments.
- Elected recipient of the BCMP Scholars Book Award for Leadership Excellence.

Neuroscience Lab Research Assistant — Princeton University — August 2021 – August 2022

With Professor Sabine Kastner, MD, PhD

- Worked on an object-based attention and visual perception project that uses MATLAB code to computationally analyze electrophysiological data from lab monkeys' brains at the neuronal level as they complete the Egly-Driver task.

Research Support — Penn State College of Medicine — June 2018 – August 2021

With Dr. Thyagarajan Subramanian, MD, MBA, and Dr. Kala Venkiteswaran, PhD

- Experience in Parkinson's Disease neurogenetics stem cell therapeutics research lab; assisted in collaboratively designing, collecting, and analyzing research data that involves human and animal subjects.
- Experience gained in doing rat surgeries, human brain tissue dissections, stereology, and data analysis for treatment research; attended medical lectures and clinical neurology physician shadowings; wrote five academia-level scientific research papers.

TEACHING EXPERIENCE

Matriculate, Princeton University — Advising Fellow August 2022 – May 2024

- A highly-trained undergraduate advisor for high-achieving, low-income juniors and seniors, aiming to empower these students to attend elite colleges where they will thrive. My duties included guiding and supporting high school fellows in the college application, enrollment, and transition process over 18 months. Also joined a campus and national network of peers, gaining leadership, organizational, and communication skills.
- Six hours a week, paid employment, responsible for two high school fellows in college applications and admissions advising.

Hatch Tutors, Princeton University — Head Teaching Fellow & Teaching Fellow January 2021 – May 2024

- Volunteer tutor and program head providing high-quality academic help and mentorship to underserved, low-income, and disadvantaged students at no cost to them, to serve my community.
- Three hours a week, entirely volunteer work, eleven tutees so far in mainly standardized tests (SAT and ACT, all subjects) tutoring.

LEADERSHIP AND SERVICE

On-Campus Extracurricular Activities & Employment — Princeton University September 2020 - May 2024

- Red Cross Blood Drive Volunteer, Princeton Public Health Review Writer, Science Olympiad Content Committee Director & Event Supervisor, Princeton Hindu Satsangam Treasurer, Undergraduate Molecular Biology Committee Member. Employment: COS 126 UCA Grader, Physics Course TA, Library Circulation Desk Assistant, Course Notetaker, Theater Production Assistant - Lighting.

Emergency Department Care Ambassador — Penn Medicine Princeton Medical Center January 2022 – May 2024

- Volunteered 50+ hours per semester as a hospital clinical assistant. Helped healthcare professionals on site with cleaning and preparing rooms for patients, housekeeping, delivery of laboratory tests/specimens/samples, and medical equipment retrieval.

Princeton HOSA – Future Health Professionals — Treasurer August 2021 - May 2024

- Voted as Treasurer of Princeton's chapter of Health Occupations Students of America, a competition-based healthcare organization to network with other students and professionals in the field, earn international recognition for our healthcare passions, and showcase our medical profession-related knowledge.

Princeton Neuroscience Network — Vice President August 2020 - May 2024

- Ran club meetings, organized student events, and helped make change and foster community for those interested in neuroscience at Princeton and the surrounding area. Was the 2022 Princeton Brain Bee Announcer.

Student Community Volunteer — Cleve J. Fredricksen Public Library March 2015 - May 2023

- Acquired over 250 hours shelving returned books, tidying bookshelves, and checking in books, working as a front-desk associate.

ACADEMIC HONORS AND AWARDS

- **1st Place in Biomedical Laboratory Science at the HOSA International Leadership Conference** June 2022
  - Champion in the Postsecondary/Collegiate Division at the 2022 HOSA ILC in Nashville, TN, attended by 8,965 worldwide competitors. Awarded $1,000 scholarship prize from Bio-Rad for my event placement as an International Gold Medalist
- **2nd Place at the State PA Governor's STEM Challenge — LightLine Co-Founder** May 2020
  - Our winning project aimed to create a prototype product of an active shooter response system named "LightLine."
  - Third-year device focused on preventing teen vaping in schools; it also went on to compete in States (February 2019).
- **Jack Kent Cooke Foundation National College Scholar** April 2020
  - One of fifty recipients of a $40,000 per year scholarship (annually from undergrad through graduate school) for high-achieving, low-income students.
  - Also awarded the Jack Kent Cooke Foundation Graduate Scholarship, worth $150,000 February 2025
- **13th Place (out of 63) in the U.S.A. National Brain Bee — University of Maryland, Baltimore** April 2019
  - First Place at the Regional Brain Bee, Qualified for the National Competition. February 2019

ADDITIONAL SKILLS AND INFORMATION

- **Languages:** Fluent in English (native), Tamil (native), Spanish (advanced), and French (intermediate).
- **Skills:** Experienced in Python, Java, Bash/Shell, C#, HTML/CSS/JavaScript, R, MATLAB, American Heart Association Basic Life Support (BLS) Certified, etc.
- **Soft Skills:** Leadership, Public Speaking, Communication, Collaboration, Problem-Solving, Teamwork, Attention to Detail, Critical Thinking and Analysis, Creativity, Adaptability, and Motivation.
- **Interests:** Medicine, computational biology research, artificial intelligence/machine learning, bioinformatics, DNA/RNA sequencing, genomics, data analysis, automation, and (bio)technology.