

ELHADJI AMADOU TOURÉ

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EDUCATION

Carleton College, Northfield, MN

September 2021 – June 2025

Bachelor of Arts: Major & Minor: Computer Science; Biochemistry

Program GPA: 3.67/4.00

Coursework: Genes, Evolution, and Development; Artificial Life and Digital Evolution; Principles of Psychology; General Chemistry I & II; Organic Chemistry I & II; Climate Change and Human Health; Energy Flow in Biological Systems; Data Structures; Human-Computer Interaction; Mathematics of Computer Science; Algorithms; Introduction to Biochemistry; Computer Systems; Mechanics and Waves; Computer Security; Programming Languages; Data Visualization; Electricity and Magnetism; Francophone Literature of Africa and the Caribbean.

Senior Thesis: [Implementing, Analyzing, and Defending Against Password Spraying Attacks on HTTP-Based Authentication Systems](#)

Aquincum Institute of Technology (BME) Study Abroad, Budapest, Hungary

August 2023 – December 2023

Coursework: Computational Biology & Medicine; Computing Theory; Scalable Systems & Development Processes; UX Design
GPA: 5.00/5.00

WORK EXPERIENCE

Baltimore Health Analytics, MN, Hybrid

March 2025 - Present

Data Scientist, Minneapolis, MN, Hybrid

August 2025 - Present

- Delivering forecasting models (Holt-Winters, SARIMAX) that are driving a 6% boost in client Star performance and secured \$80K in annualized revenue through renewals and upsells.
- Defining KPIs linking predictive insights to measurable ROI, strengthening client adoption of analytics tools.
- Alongside prior responsibilities, scaling internal platforms (70M+ rows) with React, Python (Flask), SQL, Snowflake, Teradata, and Apache Echarts.

Associate Data Scientist, Minneapolis, MN, Hybrid

June 2025 – August 2025

- Built production-ready forecasting pipelines that informed client strategy and generated \$70K in new revenue through a contract renewal.
- Alongside prior responsibilities, formalized Git workflows (through Bitbucket) and Jira sprint planning, improving reliability and delivery speed.

Data Science Intern, Northfield, MN, Hybrid

March 2025 – June 2025

- Developed machine learning models to predict CMS Star Ratings across 800K+ rows, accelerating performance evaluation.
- Co-led client-facing dashboard development and spearheaded full website redesign to modernize UI/UX and responsiveness.
- Quickly mastered Star rating methodology, surfacing new opportunities for data accessibility and decision support.
- Co-led startup's full-stack development of internal analytics tools for Plan C and Plan D clients, using React, Python (Flask), SQL, Teradata, and Apache ECharts for rich interactive data visualizations.

RESEARCH EXPERIENCE

Harvard Medical School - Mass General Brigham, Boston, MA

June 2024 – June 2025

Infectious Diseases and Global Health Intern

- Through the Medical Practice Evaluation Center (MPEC), conducting research in epidemiology and global health in low- and middle-income countries; selected as 1 of 11 fellows from over 1000 applicants.
- Applying machine learning techniques (unsupervised and supervised) and analyzing cardiometabolic disease data using over 8000 data points from a Bangladesh STEP survey.
- Contributing to high-impact analyses on health system performance and socio-economic impacts, aiding data democratization, and informing policymakers.
- Developing data management and analysis skills using Python, Pandas, and Dask.

Perception Laboratory at Carleton College, Northfield, MN

January 2023 – June 2025

Research Assistant

- Develop and conduct research experiments on the cognitive processes supporting speech perception in challenging listening conditions and the mechanisms underlying audiovisual integration.
- Research topics including the influence of expectations and contextual information on spoken word recognition and the role of individual difference factors in spoken word recognition abilities.
- Explore the quantification and mathematical modeling of the processes underlying spoken word recognition.

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Mayo Clinic, Rochester, MN

June 2023 – May 2024

Medical Oncology Intern, Department of Otolaryngology-Head and Neck Surgery

- Selected as 1 of 9 out of 50 applicants for a medical oncology position at Mayo Clinic, Rochester
- Using Flutter and Dart, developing a [web application](#) assisting patients in determining their prognosis of smoldering multiple myeloma, multiple myeloma, monoclonal gammopathy of undetermined significance (MGUS), etc.
- Participating in two pivotal research projects: 'A Mixed Method Approach to Explore Successful Recruitment and Treatment of Minority Patients on Therapeutic Cancer Clinical Trials at Mayo Clinic' and 'Comparison of Qualitative and Quantitative Dual-Energy CT and Whole-Body MRI Parameters for Longitudinal Monitoring of Bone Involvement in Patients with Multiple Myeloma.'
- Gained hands-on experience in clinical and surgical patient care, pediatric ENT, cardiology, anesthesiology, Trauma and Critical Care, healthcare disparities, resident lectures, grand rounds, and conference presentations.
- Hosted simulations at Carleton College under Walter Franz III, M.D.'s guidance to train pre-medical students in healthcare disparities, street, and emergency medicine through interactive learning modules.

Climate Change and Human Health, Northfield, MN; Addis Ababa, Ethiopia

September 2022 – March 2023

Chemistry and Environmental Studies Study Abroad Program

- Evaluated the emissions, composition, and combustion characteristics of selected blended fuel pellets to reduce users' chances of indoor PM2.5 particle inhalation.
- Analyzed the role of pellet quality and cooking practices in the performance of cookstoves in Addis Ababa, Ethiopia.

HEALTHCARE EXPERIENCE

Mayo Clinic Alix School of Medicine, Rochester, MN

October 2022 – April 2023

Pre-Medical Intern and Mentee

- Selected for mentorship and internship program for pre-medical students of minority and disadvantaged backgrounds.
- Interactive and simulation-based learning and career navigating resources in medicine through clinical and surgical simulations engagements while participating in mentor-mentee interaction and small group community service projects.

Cabinet Médical de Médecine Générale | Clinique Cardiologique, Dakar, Sénégal

July 2022 – August 2022

Clinical Intern

- Underwent training, assisted, and shadowed family, enterprise, and sports medicine physicians.
- Collected and meticulously documented patients' blood pressure, temperature, and glucose levels.
- Shadowed primary care physicians and interventional cardiologists consulting patients with various pathologies.

COMPUTER SCIENCE / TEACHING EXPERIENCES

Carleton College, Northfield, MN

January 2023 – June 2025

French Teaching Assistant ~ French and Francophone Studies Department

September 2024 – June 2025

- Support students by proofreading written assignments according to professor-established guidelines and answering grammar-related questions.
- Provide additional practice exercises to enhance grammar, vocabulary, pronunciation, writing, speaking, reading, and listening skills.
- Assist students in locating and utilizing various educational resources and engaging in conversational practice to boost their French language proficiency.
- Teach required courses on Tuesdays and Thursdays, ensuring a comprehensive understanding and application of the language.

Introduction to Computer Science, Algorithms, & Theory of Computing T.A.

January 2023 – March 2025

- Coached and mentored students in introductory Computer Science and algorithms courses.
- Held teaching assistant sessions where fundamental computer science concepts and complexity were discussed.
- Taught students the fundamentals of computability and complexity in Computer Science.
- Mentored students through exam preparation.

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Project Friendship, Northfield, MN

App Developer / Computer Programmer Student Worker

February 2023 – June 2023

- Worked independently on app development with the guidance of a professional developer for Project Friendship, a Northfield non-profit organization that provides youth mentoring.
- Completed and refined mobile application implementation for college-student mentors, parents of young mentees, the Project Friendship organization, and potential mentees to support the organization's youth mentoring mission.
- Offered creative ideas/solutions to the development and function of applications.

RESEARCH PRESENTATIONS

Machine Learning-Based Clustering of Chronic Disease Risk Factors in Bangladesh

- SNMA Annual Medical Education Conference (AMEC) – Wilbert C. Jordan Research Forum (WCJRF), St. Louis, MO, April 2025
- Delivered an oral presentation on unsupervised learning applied to cardiometabolic disease clustering in a Bangladesh STEP survey dataset.
- One of only two undergraduates selected to present at WJRCF; recognized among the **top 10 highest-scored abstracts** from over 3,000 pre-medical and medical student participants.

Audiovisual Speech Processing by L1 (“Native”) and LX (“Nonnative”) English Speakers

- Midwestern Psychological Association Conference (MPA), Chicago, IL, April 2025
- Presented a poster examining dual-task costs and speech intelligibility in audiovisual vs. audio-only conditions across L1 and LX English speakers. The study used both objective and subjective measures to assess listening effort and tested the generalizability of classic findings in speech perception.

Improved Biomass Stoves and Improved Cooking Practices Contribute to Lowering PM2.5 Exposure in Addis Ababa, Ethiopia

- American Association for Aerosol Research Conference (Presented by PI, Deborah S. Gross, PhD), Portland, OR, October 2023
- Submitted and created poster presentation on 'Improved Biomass Stoves and Cooking Practices in Addis Ababa, Ethiopia, at AAAR 2023. The study focused on the effectiveness of fan-forced gasifier stoves for reducing indoor PM2.5 levels, comparing them with traditional cooking methods. Emphasized the importance of proper stove usage and training for maximizing health benefits.
- Presented subsection entitled **Cooking Practices, Pellet Composition, and Improved Cookstove Performance** at Carleton College.

Exploring Barriers & Facilitators in Minority Recruitment for Cancer Clinical Trials: A Qualitative Study

- Summer Research Education Program Student Presentations, Rochester, MN, August 2023
- Presented research on a study that used qualitative methods to understand clinicians' perspectives on enhancing minority participation in clinical trials, identifying key barriers and facilitators, and proposing multifaceted strategies for improved recruitment and inclusivity.

LEADERSHIP EXPERIENCE

Carleton College, Northfield, MN

November 2021 – June 2025

Committee Member ~ Advisory Committee on Student Life

January 2025 – June 2025

- Serve as a student representative on a cross-functional committee focused on improving student experience and campus policy.
- Contributed to institutional dialogue on wellness, inclusion, and student engagement.
- Introduced a motion for Carleton to reassess its policies on combat sports, resulting in the formation of a focus group tasked with exploring safe and effective implementation strategies for combat athletics on campus.

Co-Founder & Co-President ~ Minority Association of Pre-Medical Students (MAPS)

September 2023 – June 2025

- Co-founded Carleton's MAPS chapter to provide support, mentorship, and professional development for underrepresented pre-med students.
- As Vice-President (September 2023 – June 2024): Led planning for AMEC 2024, including travel, logistics, funding, and coordination with the Dean of Students Office to successfully take 12 students, the largest cohort among peer institutions.
- As Co-President (June 2024 – Present): Represented Carleton in the SNMA House of Delegates at AMEC 2025. Oversee strategic planning, quarterly reports, and financial forms; attend national MAPS leadership meetings; and ensure organizational continuity.

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- Co-Founder & Co-President ~ Doctors Without Borders Student Chapter* *September 2024 – June 2025*
- Founded and built Carleton's official DWB student chapter, expanding global health education and fundraising for humanitarian aid.
 - Coordinated with international DWB offices and campus leadership to secure recognition and funding. Organized speaker events, donation drives, and awareness campaigns.
- Student Departmental Adviser ~ Computer Science Department* *September 2024 – June 2025*
- Selected as a Student Departmental Adviser for the Computer Science department, providing academic guidance and support to peers.
 - Disseminate essential information regarding courses, college requirements, and registration procedures to enhance student preparedness and success.
 - Organize and coordinate departmental events to foster a solid academic and social community.
 - Enhance the academic experience and community engagement within the Computer Science department through strategic initiatives and support.
- Committee Member ~ Youth In Power (YIP) Grant Disbursement* *June 2024 – September 2024*
- Selected to serve on YIP's competitive review board, awarding 10 scholarships of \$5,000 each to youth-led initiatives in the Twin Cities.
 - Evaluated project proposals and impact statements to support emerging changemakers.
- Treasurer & Secretary ~ Muslim Students Association* *September 2023 – June 2024; September 2022 – December 2022*
- Handle communications between the MSA board, its members, and other religious organizations on campus.
 - Collaborated with Carleton's Student Association's budget committee through applying for fund allocations.
- Member ~ College Chaplain Search Committee* *February 2023 – June 2023*
- Collaborated with faculty, staff, students, and the chief of staff of Carleton College to participate in the decision-making of hiring Carleton's new chaplain through meticulous review of applications and conducting interviews.
- Member ~ Muslim Chaplain Search Committee* *September 2022 – December 2022*
- Participated in the decision-making process for hiring Carleton's Associate Chaplain for Muslim and Interfaith Life.
- Residential Assistant* *August 2022 – August 2024*
- Foster a safe, fun, and inclusive environment for all residents in assigned dorm community.
 - Advise 42 residents by connecting them to campus resources to aid in their adjustment to life on campus.
- Intern ~ Muslim Students Association* *March 2022 – September 2022*
- Shadowed members of MSA's boards and attended board meetings.
 - Provided insight regarding the needs of the first-year students in Carleton's MSA.
- Secretary & Mentor ~ Men of Color Association* *January 2022 – November 2022*
- Provided support and resources for male-identifying students of color by managing the organization's communications.
 - Maintained involvement in mentorship program set up by Men of Color in Northfield's middle and high schools.
- First Year Representative & Mentor ~ Men of Color Association* *November 2021 – January 2022*
- Created and facilitated community-building events, including providing haircuts through contracted local barbers.
 - Launched a mentorship program with local schools to support students of disadvantaged backgrounds.
- Thrive Scholars, Scholar & Ambassador** ***April 2020 - June 2025***
- Selected as one of 90 out of 2400 applicants to participate in a 6-year college access, college success, & professional development program for high achieving, underrepresented, low-income first-generation students.

FELLOWSHIPS

- Roy Grow Fellowship, Bangkok, Thailand** ***November 2024 – December 2024***
- Independent Research Fellowship Recipient*
- Awarded the prestigious Roy F. Grow Fellowship for a significant experience in Asia.
 - Engaged in an immersive exploration of Muay Thai Boxing to enhance understanding of holistic practices.
 - Participated in rigorous Muay Thai and MMA training, bi-weekly circuit and beach training, jungle hikes, and calisthenics.
 - Integrated physical activities with pre-medical studies by documenting and studying traditional Thai healing techniques practiced within the Muay Thai community.

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LABORATORY TECHNIQUES, SKILLS, LANGUAGES, AWARDS & HOBBIES

Laboratory Techniques: Polymerase Chain Reaction, Gel Electrophoresis, DNA Extraction, Compound Purification, Titrations, Spectrophotometry, Chi-square tests, Synthesis and Characterizations, and Use of pH Meter.

Skills: Flutter Programming (Advanced); Python Programming (Advanced, LinkedIn Skill Assessment Badge); Java (Advanced); C++ (Intermediate); GitHub (LinkedIn Skill Assessment Badge); R Studio (Advanced); Microsoft Word (LinkedIn Skill Assessment Badge); MongoDB (LinkedIn Skill Assessment Badge); Microsoft Excel; Figma (Intermediate); Swift; Kotlin; React; Node.js; Penetration Testing / Red Team Blue Team.

Languages: Native Speaker of **French** and **Wolof**. Full Professional Proficiency in **English**.

Awards: David John Field Prize (Carleton College); David Pollatsek '96 Prize in Computer Science (Carleton College); Carleton College Impact Challenge Pitch for Startups (2nd Place, \$5,000 Cash Prize); Roy F. Grow Fellowship for a Significant Student Experience in Asia; QuestBridge National College Match Scholar

Hobbies: Football (soccer), Boxing (Traditional and Muay Thai), Calisthenics, Basketball, Karate, Beat making, Gaming (FIFA, 2K, Fortnite, Rainbow Siege), Swimming, Chess, Weightlifting, Guitar.

VOLUNTEER EXPERIENCE

Project Friendship, Northfield, MN

January 2023 – June 2025

Mentor

- Volunteer mentor working to bridge the gap between college students and children in the Northfield Area.
- Each week, engage with a 7-year-old, fostering a supportive relationship to help them navigate life's challenges.

Carleton College, Northfield, MN

June 2022 – June 2025

Student Volunteer ~ Carleton College Admissions

September 2024 – June 2025

- Support prospective student outreach through tours, information sessions, and student panels.
- Share personal experiences and insights to help guide applicants through the admissions process.

Mentor ~ Carleton Liberal Arts Experience (CLAE)

June 2022 – June 2025

- Served as a mentor, role model, residential advisor, and teaching assistant (TA) in summer academic program for 52 Black / African Americans who have just completed their sophomore year of high school. Ongoing mentoring of five of the program's alumni.

HealthFinders Collaborative, Northfield, MN

December 2021 – June 2025

Program Director (Carleton College Liaison)

- Uphold client confidentiality and customer satisfaction at a clinic that provides a comprehensive primary access point to health services for Rice County, Minnesota's marginalized, uninsured families.