Ram Ahuja

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EDUCATION

York University Toronto, ON

Bachelor of Science, Honours in Biomedical Science - GPA: 4.0 Sep. 2020 - April 2024

Ottawa, ON

Doctor of Medicine (MD)

Sep. 2024 - April 2028

Sep. 2024 – April 2023

RESEARCH EXPERIENCES

University of Ottawa

Undergraduate Research Assistant in KHERG

May 2023 - Present

University of Toronto - Toronto General Hospital

Toronto, ON

- Engages in research to advance comprehension of the socio-cultural factors affecting health status of racial and ethnic minorities, with a focus on the relationship between immigrant status and kidney transplant awareness
- Proficiency in on-site and remote patient recruitment, analyzing patient data, conducting statistical analysis with STATA, and presenting findings at professional conferences
- Awarded Undergraduate Research Opportunity Awards from the Institute of Medical Sciences for summer research placement (SURP) under the supervision of Dr. Istvan Mucsi

Undergraduate Research Assistant in Vital-Kolab

Sep. 2022 – May. 2024

York University

Toronto, ON

- Researches visual neuroscience under Dr. Kar, focusing on employing neurophysiological and computational-driven hypothesis testing to advance computer vision models and guide understanding of memory formation
- Collaborates with researchers at YorkU, Google Brain and MIT to compare fMRI, behavioural and electrophysiological data recorded from the ventral pathways from primates to AI models
- Designs visual perception tasks on Amazon Mechanical Turk with JavaScript expertise and apply Python programming skills for analyzing AI models and conducting statical tests

Undergraduate Research Assistant in Pearlman Lab

Sep. 2021 – Aug. 2022

York University

Toronto, ON

- Collaborated with faculty to analyze meiosis in protists by studying genomic similarities using a variety of tools from NCBI, InParanoid and EggNOG 5 under the guidance of Dr. Pearlman
- Developed a program that automates ortholog comparison tasks, expediting workflow and increasing efficiency

STEM Research Student

Oct. 2020 - Aug. 2023

York University

Toronto, ON

- Investigated gene expression differences in immune system regulatory proteins across genome-wide studies about arthritis, lymphoma and leukemia using R and Excel; presented findings at university-wide competition and advanced to the national level under the guidance of Dr. Abdul-Sater
- Analyzed the correlation between lake ice data and global warming through Excel analysis to attain an in-depth understanding of climate change; presented at university-wide research competition and achieved 2nd place

Research Assistant

Aug. 2020 – May 2023

Memorial Sloan Kettering Cancer Center

New York City, NY

- Examined the impact of the COVID-19 pandemic on pathology resident training and the shift in sign-out practices of American and Canadian residents by developing, revising and distributing surveys under the supervision of Dr. Chahar
- Obtained experience in research paper writing and effectively incorporated feedback from peer reviewers, enhancing the quality and precision of academic literature

Academic Productivity

Manuscripts and publications

• Chahar S, Choudhary L, **Ahuja R**, et al. (June 26, 2023) Impact of COVID-19 Pandemic on Pathology Residents/Trainees in North America: A Survey-Based Study. Cureus 15(6).doi:10.7759/cureus.40967 (Published)

Conference presentations and abstracts

- Ghazi W, **Ahuja R**, et al. (October 2022) Physical function impairment among patients on dialysis and kidney transplant recipients. International Society for Quality-of-Life Research (ISOQOL) Annual Conference. (Presented)
- Ahuja R & Mucsi I. (August 2023) Knowledge About Living-Donor Kidney Transplant Among South Asian Patients With Kidney Failure: Association with Immigrant Status. Student Undergraduate Research Program Research Day Podium Presentation. University of Toronto, Toronto, ON (Presented)
- Ahuja R, Seif R, Adewumi O, et al. (August 2023) Tumor Necrosis Factor Receptor-Associated Factor and Protein Kinase N expression levels in Arthritis, Lymphoma and Leukaemia. STEM Indicium National Conference. (Presented)
- Ahuja R & Kar K. (May 2024) Comparing artificial neural network models with varied objectives to probe the role of sensory representation in primate visual memorability. Vision Sciences Society. St. Pete Beach, FL (Presented)
- Ahuja R & Kar K. (Aug 2024) Constraining vision models to predict image memorability yields significant gains in producing more brain-aligned models of the primate ventral stream. Cognitive Computational Neuroscience. Boston, MA (Presented)

Publications in preparation

- Transplant Decision Making Concerns for Asian Patients With End-Stage Kidney Disease (In preparation)
- Constraining vision models to predict image memorability yields significant gains in producing more brain-aligned models of the primate ventral stream (In preparation)

EMPLOYMENT

Supplemental Instruction Leader

Sep. 2022 – May 2024

York University

Toronto, ON

- Facilitates study sessions for 5-15 second-year students by establishing a productive environment that promotes active learning through engaging group activities
- Tailors lesson plans to the needs of each student by clarifying concepts and providing additional resources

Academic Peer Support Assistant

June 2023 – Aug. 2023

York University

Toronto, ON

- Assisted in familiarizing new students with university processes, support systems, and opportunities
- Guided students in choosing relevant courses and planning their academic timetables

Customer Service Representative

Nov. 2021 – Dec. 2021

Liquor Control Board of Ontario (LCBO)

Vaughan, ON

- Safely served customers as a cashier, following underage and intoxication protocols
- Helped find products for customers and stock shelves.

Private Tutor

July 2020 – Aug. 2022

 $Self ext{-}Employed$

Toronto, ON

- Educated high school students in science, math and computer courses, adapting educational techniques to optimize their unique strengths and offering constructive feedback for further improvement
- Collaborated with students to create personalized study schedules and provided effective study techniques and test-taking strategies to assist them in accomplishing their academic goals

Volunteer Work, Internships, and Extracurricular Activities

Student Volunteer in Caribbean African Regenerative Medicine Project

 $Feb.\ 2022-Present$

University Health Network

Toronto, ON

- Strives for health equity by fostering trusting relationships between African, Caribbean and Black communities and medical professionals
- Organizes workshops to inform community members about regenerative medicine and educate clinicians and researchers about cultural perspectives

Science Lead of Robotic Club's Rover Team

Oct. 2022 - May 2024 York University Toronto, ON

• Leads the Science Team in developing the science components and lab protocol responsible for performing life detection in soil samples on the rover

• Organizes multiple weekly meetings, delegates tasks, manages finances and embeds the team's work with a larger interdisciplinary group to succeed at international competitions

President & Founder of KHERG YorkU Chapter

July 2022 - May 2024

York University

Toronto, ON

- Founded the club in collaboration with the research group at UHN to educate students about kidney health
- Facilitates outreach events, social media campaigns and club partnerships to spread awareness of kidney transplants and advocate for healthcare equity for ethno-racial minorities

Student Volunteer in KHERG

Jan. 2021 – May. 2024

Toronto General Hospital

Toronto, ON

- Established community partnerships and created multilingual kidney health content to diminish ethno-racial barriers to organ transplant amongst the Canadian South Asian population
- Under the supervision of Dr. Mucsi, developed educational material for a symptom care website that assists patients with chronic diseases in managing the physical and mental stressors of their illness
- Conducted ethnographic research and wrote reports on cultural perspectives toward kidney transplantation

Hospital Volunteer - ICU/Support/Long-term Care

Sep. 2018 – May 2024

Cortellucci Vaughan Hospital

Vaughan, ON

- Improves patient experience by advocating medical, cultural and emotional needs to staff, ensuring patient safety during discharges, and comforting grieving family members in the ICU
- Fosters a positive environment at the long-term care center by enthusiastically engaging in activities with residents

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, HTML/CSS, R, & STATA

Lab Procedures: Microscopy, PCR, Gel Electrophoresis, Cell Culturing, & Spectrophotometry

Awards

• Entrance and Continuing Education Scholarships, York University	2020-2024
• Schneider Electric Canada Inc. Scholarship	2020-2024
• Member of the President's Honour Roll & Dean's Honour Roll, York University	2021-2024
• OSOTF Science Award (Highest Faculty GPA), York University	2023-2024
• Undergraduate Travel Award, Vision Sciences Society	2024
• NSERC Undergraduate Student Research Awards, York University	2024