

Krish D. Arora, Rochester Early Medical Scholar

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University of Rochester

EDUCATION

University of Rochester | Simon Business School, Rochester, NY present — 2028
B.S. in Biology; B.S. in Data Science; Dean's List; Maximum Merit Scholarship

University of Rochester School of Medicine and Dentistry, Rochester, NY 2029 — 2033
Rochester Early Medical Scholars (BS/MD) Program | M.D. Candidate

WORK EXPERIENCE

RC Medical Emergency Response Team, EMT, Rochester, NY Sep 2025 — present

- Perform BLS level primary assessment and care (i.e. syncope, cardiac arrest, intoxication response)
- Contribute to an extremely selective on-campus EMS unit that provides night-shift first response to 6,700+ students

St. David's Healthcare Heart & Vascular, Intern, Austin, TX June 2024 — Apr 2025

- Performed med reconciliation, EKG collection, and vital charting; SOC scribing within Epic EHR
- Observed 15+ PFO closures, live fluoro, peripheral angiograms, and elective percutaneous coronary interventions

BH Medical Imaging Center, Intern, Los Angeles, CA June 2023, June 2024

- Facilitated 200+ PET/CT, MRI, and Rubidium-82 scans by handling patient intake & vitals
- Studied myocardial and hepatic abnormality recognition techniques

RESEARCH & PROJECTS

Using ALICE NY, AREDS, and PLACES to Model Eye Health in Upstate NY May 2026 — present

- Analyze University of Rochester Medical Center Quality Institute data alongside three major previously discrepant datasets to identify clinical and population-level risk factors associated with eye health outcomes
- Use R, Python, and STATA for reconciliation, regression modeling, and statistical analysis of large datasets ($n > 1b$)

Using OpenCV to Predict Inpatient Bloodstream Infections (CLABSI/CAUTI) July 2025 — present

- Apply WoundIQ image analysis and ARUCO vision-tagging to study HIPAA compliant inpatient infection detection
- Developing computer vision workflows for hospital infection surveillance and integrating standardized imaging protocols into an existing p2p nursing study

Using Python to Simulate Quantum Properties in CdSe Photovoltaic Cells May 2023 — May 2024

- Implemented biophysics equations and models to simulate photon energy absorption in CdSe photovoltaic systems w/ 89% accuracy; developed Python generated heat-map of cell power output and solar intensity; [see code](#)

Comparing Antimicrobial Efficacy of Bio-enzymes to Ammonium Based Enzymes Jan 2024 — May 2024

- Researched the synthesis and antimicrobial effectiveness of bio-enzymes for household and medical cleaning applications using E. coli agar-plate inhibition assays.

LAB AFFILIATIONS

Univ. of Rochester School of Nursing - Electrophysiology and Cardiac Arrhythmias Jan 2026 — present
Investigators: Dr. Mary G. Carey, Dr. Salah Al-Zaiti

- Quantified inter-rater reliability using Cohen's kappa and ICC to assess agreement and identify variability in abstract evaluations for journal acceptance; coded in Python/R for miscellaneous lab applications

Univ. of Rochester Flaum Eye Institute - Population Ophthalmological Health May 2026 — present
Investigators: Dr. Rajeev Ramchandran, Dr. Hossein Mousazadeh

- Perform work at the first author level: literature review, dataset reconciliation, and primary analyses focused on retinal imaging trends, preventive eye-care access, and community-level social determinants of health across upstate NY

CERTIFICATIONS

Emergency Medical Technician (EMT-B) June 2026
Human Subjects Protection Training for Biomedical Research (CITI) Feb 2026

SKILLS

Programming: Python (pandas, NumPy, scikit-learn, OpenCV), R (tidyverse, ggplot2), SQL, Stata, Git/GitHub
Statistical Modeling: Multivariable & Logistic Regression, Train/Test Evaluation, Feature Engineering
Data & Vision: Geospatial Analysis, Image Segmentation, Feature Detection, Statistical Visualization