

# EESHA A. IRFANULLAH

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## EDUCATION

**Bachelor of Biomedical Engineering | University of Minnesota, Minneapolis, MN**

**Bachelor of Science in Technical Writing and Communication | University of Minnesota, Minneapolis, MN**

Expected May 2021

- Cumulative GPA: 3.93/4.00
- Member of University Honors Program
- **Scholarships and awards:** Presidential Scholarship, College of Science and Engineering Freshman Scholarship, Undergraduate Research Scholarship, Society of Women Engineers Scholarship, Reuben and Gladys Flora Grant Scholarship, Excellence in Writing Award
- **Professional achievements:** Second place winner of the 2020 National Design of Medical Devices Conference Student Design Showcase; appointed 2020 Scientific Summer Scholar at the Novartis Institute for Biomedical Research (program cancelled due to Covid-19)

## PROFESSIONAL EXPERIENCE

**Undergraduate Researcher (Wei-Shou Hu Lab) | University of Minnesota, Minneapolis, MN.**

Jan. 2018—present

- Engineer cell lines for large-scale production of recombinant virus and protein therapeutics
- Proficient in mammalian cell culture, cloning, ELISA, SDS-PAGE
- Completed Undergraduate Research Scholarship project related to optimizing production of recombinant AAV

**Undergraduate Teaching Assistant | University of Minnesota, Minneapolis, MN.**

Jan. 2020—December 2020

- Led two, 24-student lab sections of Fall 2020 BIOL 1009 (General Biology)
- Lectured on important lab concepts/techniques and answered general, course-related questions in office hours
- Assisted students with analytical techniques (e.g., PCR, gel electrophoresis, microscopy, spectrophotometry)
- Guided students on research design, proper data collection, writing lab reports and statistics/data analysis

**Clinical Research Intern | Global Health Directorate, Indus Health Network, Karachi, Pakistan**

May 2019 – Aug. 2019

- Collaborated with statisticians and IT professionals to audit and implement improvements to Pakistan's first ever neonatal database, allowing more reliable data collection by residents
- Designed and performed a retrospective chart review of Indus Health Network's Neonatal Database to inform efforts to improve prenatal and neonatal care
- Helped moderate a series of focus group discussions as part of a project to develop a list of bellwether procedures for pediatric surgery and summarized the key findings
- Shadowed physicians and volunteered in clinics in the Infectious Disease and Pediatric Surgery departments
- Presented on Indus Hospital's global health outreach programs at the annual Friends of Indus Hospital Minneapolis Fundraiser; the event had over 350 guests and raised upwards of 200,000 USD

**Summer Intern | Medical Devices Center, University of Minnesota, Minneapolis, MN**

June 2018 – Aug. 2018

- Worked under the direction of Dr. Henry Buchwald and Felix Landeata, MS with a team of engineering students to prototype a device for use in colorectal procedures
- Recruited participants and conducted interviews with several physicians to determine design inputs
- Completed tutorials in SolidWorks, 3D printing, laser cutting and machining

**Undergraduate Researcher | Brain Injury Research Lab, Hennepin County Medical Center, Minneapolis, MN**

Aug. 2017 – June 2018

- Worked alongside laboratory and clinical research staff under the direction of Dr. Uzma Samadani to perform neurocognitive assessments and eye-tracking on patients
- Screened trauma patients for participation in clinical research studies
- Performed literature reviews and entered data into data capture systems such as RedCap and Quesgen

## COMMUNITY ENGAGEMENT

**Islamic History and Ethics Teacher | South Metro Islamic Center, Rosemount MN**

Sept. 2018 – present

- Teach weekly lessons on Islamic history and etiquette to a class of 22 4<sup>th</sup> and 5<sup>th</sup> grade students
- Design lesson plans and syllabi

**President | Pakistani Students Association, University of Minnesota, Minneapolis, MN**

Sept. 2020—present

- Manage a board of 14 members organize, execute and emcee society and community events

## SKILLS

**Computer Skills:** MATLAB, LabView, R Programming, Microsoft Office Suite, SolidWorks, ImageJ, Benchling

**Proficient Languages:** English, Urdu, Hindi