

Muhammad Rehman Shirzad

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Objective	<i>PhD candidate in Anthropology with doctoral minors in Bioinformatics and Genomics at The Pennsylvania State University. I have a strong background in forensic science, microbiology, and anthropological genomics, with hands-on experience in next-generation sequencing (NGS), genetic data interpretation, and 3D facial scan analysis to study human facial diversity. My work spans medical diagnostics, research, forensics, and computational laboratories. I also served as president of the Anthropology Graduate Student Association (AGSA), demonstrating leadership in academic and community settings. I am seeking opportunities where I can apply my interdisciplinary training, research skills, and lab experience in genetics, forensics, or data-driven environments.</i>
Education	<p>The Pennsylvania State University, State College (PA 16802) <i>Ph.D. Anthropology (Majors)</i>, Bioinformatics and Genomics (Minors) January 2022–till Status: Research in Progress.</p> <p>The Pennsylvania State University, State College (PA 16802) <i>Masters in Anthropology (majors)</i>, Bioinformatics and Genomics (minors) Aug 2024 Status: Completed, Degree Obtained</p> <p>The University of Lahore, Lahore (Pakistan) <i>Master of Philosophy in Forensic Science (MPhil)</i> Jan. 2016 Status: Completed, Degree Obtained</p> <p>University of Peshawar, Peshawar (Pakistan) <i>Bachelor of Science Honors (BS Honors) in Microbiology</i> Aug. 2012 Status: Completed, Degree Obtained</p>
Publications	
2020	<i>Atif Adnan, Shao-Qing Wen, Allah Rakha, Rashed Alghafri, Shahid Nazir, Muhammad Rehman, Chuan-Chao Wang, Jie Lu, Forensic features and genetic legacy of the Baloch population of Pakistan and the Hazara population across the Durand line revealed by Y chromosomal STRs, https://doi.org/10.1101/2020.11.21.392456, from medRxiv and bioRxiv, NOV 2020.</i>
2020	<i>Faridullah Rahiq, Li Xiguang, Muhammad Rehman, Azizaqa Zahed, Khalil Ahmad Pashtoonar, Bashir Ahmad Taseer, Ahmad Shah Wazir, Mohammad Mustafa Amarkhil, Suicide Cases and Causes Reported in Forensic Medicine Directorate and Isteqlal Hospital of the Ministry of Public Health, Kabul Afghanistan, Volume 9, Issue 7(3), July 2020, International Journal of Multidisciplinary Educational Research.</i>
2019	<i>Muhammad Waqas, Muhammad Saqib Shahzad, Arif Malik, Ishaq Ahmad, Haleema Sadia, Muneeba Butt, Murtaza Hassan, Waseem Ashraf, Muhammad Rehman, Trace Elemental Analysis of Hair for Toxicity Using Partial Induced X-Ray Emission (PIXE) Testing For Forensic Science Applications, IJBPAS, November 2019, 8(11): 2181-2194 :10.31032/IJB-PAS/2019/8.11.4865, ISSN: 2277-4998.</i>
2019	<i>Guanglin He, Atif Adnan, Allah Rakha, Hui-Yuan Yeh, Mengge Wang, Xing Zou, Jianxin Guo, Muhammad Rehman, Abulhasan Fawad, Pengyu Chen, Chuan-Chao Wang (2019). A comprehensive exploration of the genetic legacy and forensic features of Afghanistan and Pakistan's Mongolian-descent Hazara. Forensic Science International: Genetics 42 (2019) e1– e12.</i>

- 2018** Muhammad Rehman, Muhammad Waqas, Muhammad Saqib Shahzad, Saeeda Kalsoom, Javed Iqbal Bajwa, Amina Arif, Muhammad Azmat Ullah Khan (2018). Detection and comparison of light metals in hair among workers of different industries using Particle Induced X-Ray Emission (PIXE) for forensic casework. Adv. life sci., vol. 5, no. 4, pp. 154-157.

Media Publication

- 2023** I take immense pride in my role as the field producer for the extraordinary film "The Night Doctrine" at the renowned Tribeca Film Festival in NYC 2023. (<https://tribecafilm.com/films/night-doctrine-2023>). Having dedicated five years to this outstanding project, witnessing its fruition on such a prestigious platform fills me with profound joy and satisfaction. It was an extraordinary experience to contribute to this remarkable production, showcasing the power of storytelling and the magic of cinema on such a prestigious platform.}
- 2023** What We Know About U.S.-Backed Zero Units in Afghanistan.
Website: <https://www.propublica.org/article/afghanistan-night-raids-zero-units-investigation-takeaways>
- 2022** For many Afghans, terror came when night fell.
(Website: <https://www.propublica.org/article/afghanistan-night-raids-zero-units-lynzy-billing>)
- 2019** Inside Afghanistan's main forensic lab: Four scientists, one microscope.
(Website: <https://www.latimes.com/world-nation/story/2019-08-27/inside-afghanistans-main-forensic-lab>)
- 2020** The wild shrub at the root of the Afghan meth epidemic
(website: <https://www.salon.com/2020/05/24/the-wild-shrub-at-the-root-of-the-afghan-meth-epidemic-partner/>)
- 2021** A day on the job with Kabul's crime scene investigators
Website: (<https://www.aljazeera.com/features/2021/2/1/in-afghanistan-a-day-on-the-job-with-kabuls-crime-scene-investi>)
- 2020** Muhammad Rehman Shirzad-Advancing the Forensic Biosciences in Afghanistan—Progress, potential and possibilities/youtube.com.

Experience

- Aug 2023-till** **Teaching Assistant (TA)** Department of Anthropology, College of Liberal Arts, The Pennsylvania State University, PA 16802.
- Oct 2023-till** **Translator/Interpreter (Pashto, Dari/Farsi, Hindi/Urdu)**
State College Area School District, 240 Villa Crest Dr., State College, PA 16801.
- May 2024-May 2025** **President**
Anthropology Graduate Student Association (AGSA), Department of Anthropology, College of Liberal Arts, The Pennsylvania State University, PA 16802.
- Jan 2022 - July 2023** **Graduate Research Assistant (RA)** Shriver Anthropological Genomics Laboratory, Department of Anthropology, College of the Liberal Arts, Pennsylvania State University, PA 16802.

Nov 2021–Dec 2021	Teacher at Liberty Village Community Education Program <i>Joint Base McGuire-Dix -Lakehurst (JBMDL), Fort Dix, New Jersey, United States of America.</i>
April 2021–Aug 2021	Senior Forensic Laboratories Specialist and Labs Director <i>Forensic Medicine Directorate, Ministry of Public Health, Afghanistan.</i>
Dec 2015–Mar 2021	Forensic Laboratories Consultant and Labs Director <i>Forensic Medicine Directorate, Ministry of Public Health, Afghanistan.</i>
Jun 2016–Jul 2021	Asst. Director and Part-time Consultant Molecular Pathologist Noor Rahman <i>Medical Laboratories, Kabul, Afghanistan.</i>
Jul 2020–Mar 2021	SARS-CoV-2 (COVID-19) Molecular Biology Laboratory Consultant (part-time) <i>Blossom Healthcare Center, Kabul, Afghanistan.</i>
Jan 2018–May 2019	Volunteer Lecturer of Biotechnology, (part-time) <i>Faculty of Sciences, Nangarhar University, Jalalabad, Nangarhar, Afghanistan.</i>
Sep 2014 - Dec 2015	Forensic Labs Investigative Scientist (Volunteer) <i>Forensic Medicine Directorate, Ministry of Public Health, Afghanistan.</i>
Sep 2013 - Mar 2014	Laboratory Technologist/Molecular Technologist <i>French Medical Institute for Children (FMIC), Kabul, Afghanistan.</i>
Jun 2011–Jul 2021	Undergraduate Intern <i>Post Graduate Medical Institute (PGMI), Lady Reading Hospital, Department of Pathology, Peshawar, Pakistan.</i>
Professional Memberships	
2016	AAFS - Associate Member in Criminalistics <i>American Academy of Forensic Sciences.</i>
2022	CAFS - Associate Member in Forensic Pathology <i>Canadian Academy of Forensic Science.</i>
2023	ASHG - Student Affiliate <i>American Society of Human Genetics.</i>
Conferences	
2025	AAFS 77 Annual Meeting <i>American Academy of Forensic Science, 2025 Annual Meeting at Baltimore, Maryland.</i>
2023	ASHG75-Meeting <i>American Society of Human Genetics, 2023 Annual Meeting at Washington, DC.</i>

2022	Gordon Research Conference — Forensic DNA JRC Human Identification Conference-2022, Mount Snow, Vermont.
2014	Forensic Conference UOL 1st National Conference on Integrated Role of Forensic Science in Criminal Justice System, Department of Forensic Science, The University of Lahore, Pakistan.
Scholarships and Awards	
2024	Emmy Award - 2024 Emmy Award, The Night Doctrine (2024): I and my team won three Emmy Awards for Outstanding News Discussion Analysis: Editorial and Opinion, Outstanding Graphic Design: News, and Outstanding Music Composition: News. As field producer, I led field operations, research, and logistics, playing a key role in the documentary's critical and award-winning success.
2023	AGSA - Visual Anthropology Award Visual Anthropology award, 2023—for the short 3D documentary “The Night Doctrine” from Penn State University.
2021	PhD. Scholarship Ph.D. Scholarship in Anthropology, Bioinformatics and Genomics, The Pennsylvania State University, USA.
2019	Principle nominee for IVLP Principal nominee for the program, “Rule of Law and the U.S. Judicial System,” in 2019 from the International Visitor Leadership Program (IVLP), Department of State, USA.
2018	Appreciation Certificate Appreciation Certificate from the United States Department of State and United States Embassy, Kabul, Afghanistan.
2014	OIC - Scholarship Student exchange scholarship from the Organization of Islamic Countries (OIC).
2014	Forensic UOL Shield of best performance and best organizer in the 1st National Conference on Integrated Role of Forensic Science in Criminal Justice System, Department of Forensic Science, The University of Lahore, Pakistan.
2012	DAFI - Scholarship Albert Einstein German Academic Refugee Initiative Scholarship, Germany.
2004	Ministry of Education Awarded District Topper Certificate in Middle School Examination from the Ministry of Education.
Outreach	
2023/24	Ask a Scientist - Pennsylvania Grange Fair I participated in the Pennsylvania Grange Fair's “Ask a Scientist” event, where I had the opportunity to engage with schoolchildren who showed great interest in my research and work.

2025	AnthroFest-2025 I participated in AnthroFest to present my research to the broader community and also helped organize the event in my role as President of the Anthropology Graduate Student Association (AGSA).
2024	Love your Neighbor. I participated as a speaker at the Love Your Neighbor event in State College, PA. This community gathering brought together people of various backgrounds, beliefs, and professions to promote understanding, respect, and unity. It was a meaningful opportunity to share my perspective and connect with others about the values of empathy and inclusion. Being part of such a diverse and welcoming environment was both inspiring and impactful.
2023	<i>Policy Council Representative</i> <i>I also serve as the Policy Council Representative for CenClear Preschool at the Mat-ternville Center, where I support communication between parents and teachers, attend school meetings, and help advocate for the needs and interests of families in the pro-gram.</i>
Officially Translating	English, Dari, Farsi, Hindi, Urdu and Pashto
References	
*	References will be provided on request.