RUDRA K. TEJIRAM

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EDUCATION

University of Arizona James E. Rogers College of Law, Tucson, AZ   August 2025 – May 2028
Candidate for Juris Doctor, GPA: Available mid-January

- Honors: Sidney B. Williams Jr. Scholar and Tuition Grant Recipient (IP Law Foundation)

- Passed USPTO Patent Bar Examination, September 2025 (registration pending)

Johns Hopkins University, Baltimore, MD   January 2023 – May 2024
MS in Materials Science and Engineering, Concentration: Nanotechnology

- Graduate Coursework: Stealth Engineering, Nanomaterials, Biomaterials, Photonics

University of South Florida, Tampa, FL   May 2020 – December 2022
Bachelor of Science in Physics, Focus: Computational Physics and Artificial Intelligence

EXPERIENCE

Independent Developer, Patent Law Tools, Remote   June 2025 – September 2025

- Built AI-powered legal research assistant integrating MPEP, 35 U.S.C., and 37 C.F.R. for patent practitioners, delivering citation-linked answers with accuracy controls; deployed open-source Patent Bar study platform with performance tracking

- Designed both tools to address practical needs in patent prosecution and exam preparation, demonstrating technical fluency in patent law structure before formal coursework

Graduate Researcher, Johns Hopkins University, Baltimore, MD   January 2023 – February 2025

- Designed PLGA-based hydrogel architecture with enzyme-triggered release mechanisms for hemophilia treatment

- Designed carbon nanotube field-emission display fabrication process utilizing hydrogen plasma pretreatment to control CNT morphology, including detailed process parameters and manufacturing cost analysis

Applied Data Analytics Specialist, University of South Florida, Tampa, FL   January 2021 – December 2022

- Developed unsupervised learning models including hybrid autoencoders for classification and predictive analytics

- Created Tableau dashboards and statistical analyses using industry datasets from tech sector case studies

Army Cadet, United States Military Academy, West Point, NY   June 2018 – February 2020

- Conducted classified quantitative research for NSA applying PDEs and signal processing to identify patterns in complex datasets

- Selected for Student Conference on U.S. Affairs, collaborating with international diplomats on geopolitical strategic analysis

- Completed coursework in cybersecurity and physics while mentoring cadets in computer science and mathematics

SKILLS, ACTIVITIES & INTERESTS

- **Patent-Relevant Technical Expertise:** Nanotechnology, Materials Science (carbon nanotubes, drug delivery systems, biomaterials, biochemical sensors, polymers), Computational Physics, Machine Learning, Statistical Analysis

- **Programming & Tools:** Python, Machine Learning/NLP, RAG Systems, FastAPI, Tableau, Statistical Software

- **Activities:** West Point Orchestra (Cellist); West Point Athletics (Army Boxing, Track & Field)

- **Security Clearance:** Secret (inactive)