Matthew Poland MS, PA-C
Clinician and Informaticist

With nearly a decade of experience as an ICU clinician, I have learned to thrive in demanding situations by cultivating a distinctive skill set that includes effective communication, critical thinking, adaptability, and teamwork. I staunchly believe in the transformative potential of well-organized data and robust research to elevate the quality of patients' lives. Guided by the philosophy that quality care stems from quality design, I have invested over a thousand hours studying data preparation, statistical analysis, data visualization, and predictive models. I am deeply passionate about research and clinical science and being a part of shaping the future of healthcare.

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Experience

Hackensack Meridian Health — 2015 to present
Critical Care Physician Assistant and Quality Advisor
- Organize and dynamically prioritize hundreds of daily objectives with patient care at the forefront while addressing the needs of consultant treatment plans, families, nursing care, and disposition plans
- Possess in-depth knowledge of neurocritical, surgical, and traumatic pathology
- Execute complex critical care treatment plans while managing a cross-functional ICU care team
- Versed at presenting complex health data to diverse audiences including Patients, Families, and Care Teams
- Skill in ICU procedures (CVC, Aline, etc)
- Supervise and train clinicians in clinical management, clinical presentation, and bedside procedures
- Lead initiatives within the Trauma Quality Program to uphold Level 1 Trauma Center designation and implement ACS/NTDB/TQIP standards
- Conduct exploratory data analysis within our Trauma Registry and Epic in accordance with HIPAA to research quality and safety measures (time series analysis on injury epidemiology)
- Contribute to Medical Affairs by authoring and refining critical policies
- Participate in quality focused chart reviews
- Perform literature reviews to write treatment guidelines (ex. Antibiotics in Trauma Bay, Tracheal Decannulation)
- Recognized as liaison to KOLs in Neurosurgery, Neurocritical Care, and Stroke Neurology
- Awarded 2022 PA of the Year

Pratt Institute — 2012 to 2016
Institutional Advancement Operations Associate
- Utilized Blackbaud Raiser's Edge CRM software to manage our donor database
- Maintained a system of financial records to ensure accurate IA inter-department budgeting
- Connected companies with art students to offer unique philanthropic and joint marketing ventures

Technical Skills

Python, R, SQL, Tableau, Excel, NumPy, pandas, matplotlib, seaborn, PostgreSQL, pgAdmin, sci-kit learn, SciPy, Keras, Tensorflow, PyTorch, Colab, Jupyter, Git, Apache Pulsar, Bioconductor

Data Science Certifications
- Analyzing Genomic Data in R - 2024
- Practical Apache Pulsar Application Development - 2023
- Data Scientist with Python from Datacamp - 2023
- Data Analyst with Python from Datacamp - 2023
- Python for Data Science and Machine Learning from Pierian Training - 2023
- Machine Learning, Data Science and Generative AI with Python from Udemy - 2023
- Math for Data Science Masterclass from Pierian Training - 2023
- Complete SQL from Pierian Training - 2022
- Statistician in R (Enrolled)
- Machine Learning Scientist with Python (Enrolled)

Healthcare Licenses/Certifications
NCCPA and NJ PA License / ATLS, ENLS, ACLS, BLS

Education
- MIT | MicroMasters | Statistics and Data Science (Enrolled)
- SHU | Master of Science | Physician Assistant Studies - 2015
- SHU | Bachelor of Science | Business Administration (Finance/Marketing) - 2007

Data Science Projects
- Dementia Prediction
- Global Burden of Disease
- DE Analysis of Breast Cancer