Huan-ju(Coco)Shih

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Summary

Active Ph.D. candidate in Health Informatics (STEM) with a Health Administration background. Expertise in process improvement and data management. Key skills include attention to detail, coupled with the ability to communicate and present efficiently and effectively. Complemented by strong interpersonal dexterity. Software skills include SQL, STATA, SPSS, and Python.

EDUCATION

George Mason University, Fairfax, VA   **Expected Graduation: Spring 2025**
Health Services Research, Ph.D., Health Informatics; Concentration: Health Data Analytics   **GPA: 3.6/4.0**

- Coursework: Data Structures, Database Management Systems (MySQL, SQL Server, PostgreSQL, Python), Artificial Intelligence (AI), Advanced Statistics in Service Research, Health Data Mining (Association Mining, Machine learning algorithms), Experience with working on Claims data, EHRs.

George Mason University, Fairfax, VA   **May 2018**
Master of Health Administration   **GPA: 3.5/4.0**

- Introduction to Health Informatics, US Health Systems, Advance Research Seminar in Health Policy Analysis, Health Economics, Financial Management in Healthcare, Quality Improvement, Legal Issues in Health Administration, Strategic Management in Healthcare, Population Health Informatics.

  -Ranked first place of 15 graduating students with the only designated level of expert by GMU faculty ranking first with 97 out of 100 possible points.

RELEVANT EXPERIENCE

National Science Foundation Research Traineeship (NRT) Fellowship   **May 2023-Present**
CASBBI NRT Fellowship to work with The Center for Adaptive Systems of Brain-Body Interactions (CASBBI)

- Pending grant with the Center for Naval Analyses from the Department of Justice Office (DOJ) on Violence Against Women.
- Address societal challenges through community engagement design projects, such as collaborating with stakeholders, individuals, communities, and policymakers working on restorative justice for domestic violence survivors.
- Analytical Problem-solving-Improving the health and well-being of Firefighters/Domestic Violence Survivors in Fairfax County.
- Design Thinking-Create innovative strategies in community needs assessment, capacity building, and health literacy intervention.

Research Assistant/Adjunct Faculty   **September 2019 – Present**
Department of Health Administration & Policy, George Mason University – Fairfax, VA

- Teach HAP360-Introduction to Health Informatics for undergraduate students.
- Analyzed and manipulated cancer data (Claims, EMR) by using Linux and SQL from the George Mason data warehouse.
- Conducted research on disparities in hospital readmissions and lack of fairness.
- Conducted research on using mobile phones to prompt chronic disease management.
- Conducted research on mental health among older adults.
- Collaborated with trauma surgeons to analyze transport delays for a multi-institutional study on FCOTS delays and mitigation strategies *-INOVA patient transport for better quality and safety was presented at the American College of Surgeons on August 21-24, 2020. The project has been presented in the Guthrie Journal on February 1, 2024.*
- Gathered and analyzed projects related to falls among older adults and sought methodologies to reduce foreseen falls.

Quality Consultant (Residency)   **May 2017 – July 2019**
INOVA – Fairfax Medical Campus Falls Church – Falls Church, VA

- Facilitated Kaizen event supporting INOVA's Strategic Process Improvement Team to reduce OR turnaround time by redesigning workflow.
- Analyzed and manipulated raw data into visual summaries to show opportunities and trends in the Capnography Research project.
  -Changes in process operations led to a 40% decrease in delays in addition to a savings of 3.5 full-time equivalent's (FTE) annually. The project received first place at the INOVA nursing research symposium, and the project has been implemented throughout the INOVA Health Systems.
- Orchestrated time studies to value stream and identify opportunities for process re-engineering for antibiotic timing, administration, and compliance.
- Assessed, developed, and facilitated throughput initiatives to reduce transport delays and optimize patient flow from the inpatient unit to OR's.
- Supported C-Section SSI initiatives reduction Audit and tracking Accountable Care Organizations (ACO) performance.

- Participated in regulatory readiness activities by rounding with staff on invasive procedure units to identify possible opportunities within the units, break down the problems and create viable solutions by using data to determine compliance vulnerabilities and analyze the project to pilot the solutions.

Project Management Intern   **January 2018 – May 2018**
Specialists On Call (SOC, telemedicine company) – Reston, VA
- Support the Project Management team to scope market opportunities by specialty or by care setting.
- Work independently and engage cross-functional departments to identify project opportunities, and set goals and targets.
- Manage multiple projects' impact and sustainability by monitoring project items.
- Served as research support to the project management team.

PUBLICATIONS & POSTERS

- Assessing Health Disparities in Digital Services & Technologies During After the COVID-19 Pandemic   2025
- Bringing the Public Health Informatics and Technology Workforce Together: The PHIAT Conference. 12/04/2024:55377. DOI: 10.2196/55377   2024
  2023
- Rural, Regional, Racial Disparities in Telemedicine Use During the COVID-19 Pandemic Among US Adults: 2021 National Health Interview Survey (NHIS), doi: 10.2147/PPA.S439437
- Informing Patient-Provider Engagement for Shared Decision Making Through Mobile Health Applications, doi: 10.2147/PPA.S438710   2023
- Inpatient Transport Delays-The Right Patient at the Right Time, The Gurthie Journal ID-GUTHRIE-2023-0017.R1   2023
- Association Between Falls and Chronic Health Conditions Among Adults in Residential Care Facilities-Analysis of the National Survey of Residential Care Facilities (NSRCF) Data, doi: 10.26717/BJSTR.2020.30.005018   2021
- Time-optimized Prediction of Late Cancer Diagnosis, American Medical Informatics Association.   2024
- Gender and Racial Bias Unveiled: Clinical Artificial Intelligence (AI) and Machine Learning (ML) Algorithms, 22nd International Conference on Artificial Intelligence in Medicine.   2024
- Time-optimized Prediction of Late Cancer Diagnosis, (2024) —Conference on Health IT and Analytics (CHITA).   2024
- Huan-Ju Shih*, Cristopher L. Hinagpis*denotes equal contribution, Siddartha S., (2023, October) Addressing convergent problems in health and society by connecting communities of care. Poster presented at the annual National Science Foundation (NSF) Research Traineeship (NRT) conference in Tempe, Arizona. —NSF Annual Conference.   2023
  2023
- Disparities in Hospital Readmissions and Lack of Fairness.—AMIA Conference.   2020
- Using Mobile Phones to Prompt Chronic Disease Management.—AMIA Conference.   2020
- Behavioral interventions to improve sleep quality among older adults with depression in the USA, a systematic review. —APHA 2020 Virtual Annual Meeting and Expo. Session Title: RT01 Palliative Care, Advance Care Planning, and End-of-Life Issues. 476276   2020
- Inpatient Transport Delays-The Right Patient at the Right Time. —American College of Surgeons.

SKILLS & CERTIFICATIONS

Languages/Technology: [Your Repositories](#)
- Proficient – SQL (SQL Server, MySQL, PostgreSQL), STATA, SPSS, Visio, MS Office. Intermediate – Python. Beginner – Tableau.
- Expertise in Classification, Clustering, and Statistical models. Efficient at Developing Data Visual Charts using Python and Tableau.

Certifications:
- Lean Six Sigma Green Belt, Institute for Healthcare Improvement in Basic Quality and Patient Safety, Certificate of Completion for the HIMSS Mentorship Program, TeamSTEPPS.