HSIN YI "CINDY" CHEN

www.hsinyi-chen.com hsinyi2015@gmail.com

EDUCATION

Cornell University *May 2019*
B.S., *magna cum laude*, Biometry & Statistics
Minor in Music

Honors and Awards
Cornell Alumni Association of Atlanta Scholarship Recipient 2016, 2017
Dean's List All semesters

RESEARCH EXPERIENCE

Yale School of Medicine, Department of Neurology September 2019 - Present
Post-graduate Research Associate, PI: Dr. Jennifer Kim *New Haven, CT*

· Analyzed the value of electroencephalogram and transcranial doppler ultrasounds in predicting vasospasm and delayed cerebral ischemia for patients with aneurysmal subarachnoid hemorrhage through data visualization, group based trajectory modeling, and multivariate logistic regression
· Developed code to extract transcranial doppler ultrasound data from electronic medical records output and compile data into panel data sets
· Presented and explained results during lab meetings and national conferences, such as the American Academy of Neurology 72nd Annual Meeting
· Created a 5-week lecture series for the Neurology department focusing on statistics for biomedical data, where topics ranged from parametric analysis to categorical data analysis, and survival analysis

Columbia University Medical Center January 2018
Research Assistant, PI: Dr. Denise Lee *Remote*

· Led project analysis to determine whether there is a significant difference in bone mass density after parathyroidectomies in patients with atypical biochemical profiles of primary hyperthyroidism
· Fitted log-linear mixed models with and without effects modification
· Interpreted and explained model results to research team
· Created figures and tables; coauthored the resulting paper published in *Surgery*

Cornell University, SC Johnson Graduate School of Management January 2016 - May 2019
Research Assistant, PI: Dr. Clarence Lee *Ithaca, NY*

· Generated methodology and code to quantify key metrics such as network effects in customer acquisition, customer lifetime value, and machine learning classifier performance
· Developed code in R and Python to process, simulate, analyze, and visualize data
· Collaborated with peers to conduct literature reviews

PUBLICATIONS

Chen HY, Elmer J, Ghanta M, Valdery Moura J, Rosenthal ES, Zafar SF, Gilmore EJ, Hirsch LJ, Sheth KN, Petersen NH, Westover MB, Kim JA. "Epileptiform abnormality and TCD information together improve DCI prediction after SAH." Manuscript in preparation.

Baang HY, **Chen HY**, Herman AL, Gilmore EJ, Hirsch LJ, Sheth KN, Petersen NH, Zafar SF, Rosenthal ES, Westover MB, Kim JA (in press). "The utility of quantitative electroencephalography in detecting delayed cerebral ischemia after aneurysmal subarachnoid hemorrhage." *Journal of Clinical Neurophysiology.*

Lee D, Walker MD, **Chen HY**, Chabot JA, Lee JA, Kuo JH. "Bone mineral density changes after parathyroidectomy are dependent on biochemical profile." *Surgery*, vol. 165, no. 1, 2019, pp. 107-113.

ABSTRACTS AND PRESENTATIONS

Chen HY, Elmer J, Ghanta M, Valdery Moura J, Rosenthal ES, Zafar SF, Gilmore EJ, Hirsch LJ, Sheth KN, Petersen NH, Westover MB, Kim JA. "Models integrating epileptiform abnormalities, TCD, and clinical variables improve DCI prediction after SAH." (2020, October). E-poster for the 145th Annual Meeting of the American Neurological Association. (Conference Online due to COVID).

Chen HY, Elmer J, Ghanta M, Valdery Moura J, Rosenthal ES, Zafar SF, Gilmore EJ, Hirsch LJ, Sheth KN, Petersen NH, Westover MB, Kim JA. "Combining TCD and epileptiform abnormality information improves DCI prediction after SAH using logistic regression and group-based trajectory models" (2020, September). Distinguished E-poster (top 10% of abstracts) for the 18th Annual Meeting of the Neurocritical Care Society. (Conference Online due to COVID).

Soto AL, **Chen HY**, Kuohn L, Herman AL, Gilmore EJ, Hirsch LJ, Matouk C, Falcone GJ, Sansing LH, Petersen NH, Amin H, Gobeske K, Hwang DY, Jasne A, Kaddouh F, Loomis C, Narula R, Schindler JL, Sharma R, Sheth KN, Kim JA. "Post-ischemic stroke epilepsy: Risk assessment based on interventions, complications and in-hospital improvement" (2020, September). E-poster for the 18th Annual Meeting of the Neurocritical Care Society. (Conference Online due to COVID).

Chen HY, Ghanta M., Rosenthal ES, Zafar SF, Westover MB, Kim, JA. "TCD and EEG Combined Better Predicts DCI After SAH." (2020, April). Oral Research Presentation at the 72nd Annual Meeting of the American Academy of Neurology, Toronto, Canada. (Conference Online due to COVID).

PROFESSIONAL EXPERIENCE

Cornell University, School of Industrial and Labor Relations January 2017 - May 2019
Teaching Assistant, STSCI 2100: Introductory Statistics *Ithaca, NY*

- Developed lesson plans with practice exercises based on course objectives and professor's lectures
- Taught two weekly recitations of approximately 20 students each
- Facilitated course communication through holding weekly office hours, answering questions on the online class discussion board, and providing student feedback

Booz Allen Hamilton Summer 2017 & Summer 2018
Intern, Front End Developer *Atlanta, GA*

- Lead developer in prototyping an optimized online information portal and a laboratory information dashboard for the Centers for Disease Control and Prevention (CDC)
- Identified gaps within the current CDC.gov website and CDC laboratory work flow through UX analysis and stakeholder interviews
- Developed taxonomy for the CDC website to categorize information such as diseases and healthcare notices using the National Library of Medicine's Medical Subject Heading taxonomy (MeSH)
- Presented final solutions to a CDC c-suite executive and senior partners of Booz Allen Hamilton and placed in the top 10 (out of 70+ teams) in the Booz Allen Summer Games Challenge
- Coauthored a white paper on drones in GIS mapping to support potential future projects at the CDC

Centers for Disease Control and Prevention (ATSDR/GRASP) Summer 2016
Data Analyst Intern *Atlanta, GA*

- Collected data for the Atlanta Beltline Project through surveying sidewalk and road conditions in various Atlanta neighborhoods
- Updated the CDC Social Vulnerability Index (SVI) Toolkit to reflect 2014 census updates
- Visualized data from the Atlanta Beltline Project in the context of social vulnerability index through ArcGIS

CO-CURRICULAR ACTIVITIES

Violist, Civic Orchestra of New Haven October 2019 - Present
Crisis Counselor, Crisis Text Line January 2019 - Present
Mentor/Learning Partner, CLASP January 2019 - May 2019
Peer Advisor, Cornell Department of Biological Statistics August 2018 - May 2019

Volunteer, Bridges Cornell Heights — August 2018 - May 2019
Volunteer, Assured Hospice Care — Summer 2018
Violist and Poster Designer, Cornell Chamber Orchestra — August 2015 - January 2019
Webmaster, Project Hope at Cornell — August 2016 - May 2017
National Board Member, Intercollegiate Taiwanese American Student Association — August 2016 - May 2017
Executive Board Member, Cornell Taiwanese American Student Association — August 2015 - January 2017

TECHNICAL STRENGTHS

Languages	R (Expert), Python (Expert), STATA (Proficient), MATLAB (Proficient), HTML & CSS (Expert), Javascript (Proficient)
Software/Tools	LaTeX (Expert), Adobe Photoshop (Expert), QGIS (Expert), ArcGIS (Proficient)
Statistical Methods	Survival Analysis, Growth Curve Analysis, Categorical Data Analysis