Hsiang-Chin (Lori) Chou, MS

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EDUCATION

M.S. Epidemiology, University of California, Los Angeles 06/2019
Thesis: The Association of Gut Microbiome Composition and Parkinson's Disease

B.S. Civil Engineering, National Taiwan University 06/2015
Presidential Award (2014, 2015)

RELATED COURSEWORK

Public Health: Epidemiological Methods, Biostatistics (5 Quarters), Computer Management and Analysis of Health Data Using SAS (4 Quarters), Environmental/Infectious Disease/Genetic/Cancer Epidemiology

Engineering: Regression and Discrete Choice Methods, Computer programming, Operation Research, Disaster Management and Civil Engineering, Engineering Mathematics/Economics, Traveler Behavior Analysis

SKILLS

Software: R, SQL, SAS, Stata, SPSS, AutoCAD, Sketchup, Blender, Python, Octave, QGIS, QIIME 2.0, C++, Java
Language: Mandarin Chinese (native), English (fluent), Taiwanese (fluent)

PROFESSIONAL & RESEARCH EXPERIENCE

Massachusetts General Hospital/Harvard Medical School, Boston, MA 11/2019-
Data Analyst, Martinos Center for Biomedical Imaging, Harvard Aging Brain Study, Department of Neurology
University of California, **Los Angeles,** Los Angeles, CA 09/2017-06/2019
Graduate Research Assistant, Department of Public Health, Parkinson Environment & Genes (PEG) Study
National Taiwan University, Taipei, Taiwan 07/2016-02/2017
Research Internship, Department of Public Health, Human Genomics & Psychiatric Epidemiology
Construcciones Auxiliar de Ferrocarriles (CAF), Kaohsiung, Taiwan 2014 summer
Student Internship, "Light Rail System Construction Project in Kaohsiung, Taiwan"
Taiwan High Speed Rail Summer Program *(Selected attendee)* 2014 summer

PROJECTS & ACHIEVEMENTS

- "Clustering cognitive and biomarker trajectories using latent class mixed models"
  - Linear mixed models; Generalized additive mixed models
  - Latent class mixed models; growth mixture models; clustering analysis (k-means, k-medoids)
  - Visualizations and presentations of models and data
  - Propensity score matching analysis (PSM)
- "How to interpret an amyloid*tau interaction on cognitive decline in clinically normal adults"
  - Principle component analysis (PCA)
- "Pilot study of the Relationship Between Parkinson's Disease and the Gut Microbiome"
  - Served as the lead data analyst and study coordinator for the study of "Gut Microbiome & Parkinson's Disease"
  - Assisted in database development and maintained study database management with MS Access
  - Developed protocal for subject's fecal sample collection and processing
  - Bioinformatic analysis of taxonomic assignments and microbiota with QIIME 2.0 and R
- Signal Priority Project for traffic simulation with software SUMO
  - Analyzed and simulated the traffic flow
  - Developed the signal priority control model to optimize the operation of light rail transit system
- 2D/3D/Animation design with AutoCAD/SketchUp/Blender

PUBLICATION AND POSTER PRESENTATIONS

- Chung YC, Chen HC, **Chou HC**, et al., "Exploration of microbiota targets for major depressive disorder and mood related traits" *J Psychiatr Res.* 2019 Jan 19;111:74-82. PMID: 30685565.
- Poster presentation at American Academy of Neurology Annual Meeting, UCLA CURE 2019, World Congress of Psychiatric Genetics 2017, Taiwan Public Health Annual Meeting 2016

LEADERSHIP EXPERIENCE

Vice President, UCLA Taiwanese Student Association 09/2017-08/2018
- Co-led the association of 130+ members; Organized student events; Represented Taiwanese students to the University