

Developing and Validating Machine Learning Models to Understand Life Course Determinants of Dementia Risk

Closed to further applications

Faculty Member: [Xi Chen](#)

This project is eligible for remote work.

Proposal Description:

This study aims to explore machine learning methods to deepen our understanding of life course determinants of dementia risk and racial/ethnic disparities. There are marked differences in rates of dementia among US older adults, the fastest-growing segment of the population. The prevalence rate of dementia for non-Hispanic Blacks and Hispanics are 1.5-2 times higher than that of non-Hispanic Whites, after accounting for age, sex, education, and late-life comorbidities. Despite growing evidence of racial disparities in cognitive health and dementia risk, specific life course causes remain largely unclear and underexplored. Machine learning (ML) has demonstrated enormous potential for early detection of diseases and lowering costs. We will review, develop and validate machine learning models to inform development of well-targeted interventions prior to the onset of dementia to slow the process of cognitive impairment and help address dementia-related disparities across racial/ethnic groups.

Requisite Skills and Qualifications:

We are looking for a research assistant who will conduct literature reviews and assist with data analysis. Ability to document key studies, editing drafts of grants and papers are required. Knowledge of R and STATA are preferred skills. This project is eligible for remote work.

Award: Charlson Kim

Tobin Application Link: [Tobin Application](#)

Project Type: Tobin RA

Project Year: 2021

Term: Spring 2021

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