

Albert Lee

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Experience

Bill & Melinda Gates Foundation

Seattle, WA

Research Scientist, Institute for Disease Modeling

2018 – 2024

- Constructed bespoke models to simulate the population dynamics of endemic malaria and polio, evaluating the efficacy of different intervention policies.
- Developed scientific strategy for characterizing malaria genomics model. Integrated learnings into cross-team discussions to facilitate mapping of deliverables to stakeholder needs.
- Communicated use cases of genomic models to policymakers at the WHO.
- Coordinated with partners in multi-institute collaborations spanning the global South and North.

Insight Data Science

Boston, MA

Data Science Fellow

2017

- Built a Flask web app with a Python backend for predicting market reach of Instagram posts.

Harvard University

Cambridge, MA

Research Fellow, Finkbeiner group

2013 – 2018

- Formulated a customized Bayesian posterior sampler in IDL for extracting a faint second-order signal from a noisy data set of ~10 million stellar spectra.
- Optimized algorithm for numerical accuracy. Improved run time by a factor of 4.
- Created a new map of galactic dust reddening, a data product of interest to most of the observational astronomy community.

Teaching Fellow, Introduction to Mechanics

2015

Massachusetts Institute of Technology

Cambridge, MA

Undergraduate Researcher, Sciolla group

2008 – 2010

- Designed and conducted experiment to identify and calibrate non-uniform gain in the Dark Matter Time Projection Chamber (DMTPC), improving signal to noise ratio by factor of 2.5.
- Implemented model in C++ to simulate the physics of the DMTPC, and estimate its efficiency.

Education

Harvard University

Cambridge, MA

PhD in Physics

2011 – 2018

NSF GRFP Fellow (2011 – 2014)

Massachusetts Institute of Technology

Cambridge, MA

BS in Physics

2006 – 2010

Malcolm Cotton Brown Award for a senior pursuing graduate studies in experimental physics

Skills

Languages: English, Korean (proficient), Japanese and Spanish (conversant), Python, C++, Elm

Tools: Microsoft Office, Google Docs, Photoshop, Illustrator, git