

# NICK HAND, PHD

TECHNOLOGIST  
DATA SCIENTIST  
EDUCATOR



Philadelphia, PA



nicholas.adam.hand@gmail.com



[nickhand.dev](http://nickhand.dev)



[@nickhandphl](#)



[@nickhand](#)

## AREAS OF EXPERTISE

- The intersection of consumer protection law and technology in the financial services sector
- Tech policy with a focus on AI/ML, data privacy & surveillance, and algorithmic bias
- More than a decade of Python experience with extensive knowledge of the modern data science toolkit
- Geospatial analysis techniques and GIS software tools
- Design and data visualization including frontend web development (Javascript, Typescript, HTML, CSS, Vue)
- Advanced statistical analysis and AI/ML algorithms

## OTHER SKILLS

- [Guest contributor](#) at the Philadelphia Citizen
- Analyzing and communicating complex technical information to non-technical audiences
- Designing, executing, and managing data-driven research projects and technical products
- Writing, presenting findings to both executive and public audiences
- Managing a team of technical experts to achieve results on tight timelines

## OTHER ACTIVITIES

- Mentor for inaugural [Harvard Climate Justice Design Fellowship](#), Class of 2022
- Keepers Program, Leadership Philadelphia, Class of 2022

## LATEST WORK EXPERIENCE

### SENIOR ANALYTICS MANAGER

Voyatek  
April 2025 – present

- Leading a team of five analysts responsible for developing data engineering and analytics solutions for the Internal Revenue Service as part of anti-money laundering compliance exams

### ENFORCEMENT TECHNOLOGIST

Consumer Financial Protection Bureau (CFPB)  
September 2023 – April 2025

- Key contributor to the Enforcement Division technologist team who developed new case investigations, provided key insights to cross-functional case teams on a range of technology topics, and identified new opportunities for improving operational efficiency.
- Identified and developed technical strategies to achieve CFPB goals related to AI & machine learning, algorithmic bias, and data security by researching, developing, and pitching new cases in those areas of priority.
- Led cross-Bureau collaborations on data security and contributed to cross-functional work products on AI/ML underwriting and data privacy policy issues.

### LECTURER, MASTER OF URBAN SPATIAL ANALYTICS

Univ. of Pennsylvania  
September 2019 – January 2024

- Taught the [Geospatial Data Science in Python](#) course once per school year in the [Masters of Urban Spatial Analytics](#) (MUSA) program in the Weitzman School.
- Developed course curriculum from scratch, which included a wide range of data visualization, data science, and machine learning techniques using a Python stack with real-world case studies in the urban planning and public policy realm.

### DIRECTOR OF FINANCE, POLICY, AND DATA

[City Controller's Office](#), City of Philadelphia  
February 2018 – September 2023

- Led a team producing data-driven policy reports focusing fraud, waste, and abuse in the City of Philadelphia, including property tax assessments, gun violence, spending, budget, and taxes.
- Designed, developed and deployed multiple custom interactive data visualizations, including a [Gun Violence Dashboard](#) (thousands of monthly views) and the [ProgressPHL](#) neighborhood well-being dashboard.

## EDUCATION HISTORY

### UNIVERSITY OF CALIFORNIA, BERKELEY

PhD in Astrophysics — 2017

- Co-authored papers with thousands of citations, including 6 first-author papers (>700 citations)
- DOE Office of Science Research Fellow
- National Science Foundation Graduate Research Fellow

### PRINCETON UNIVERSITY

Bachelor of Arts in Astrophysics, Certificate of Computing — 2011

- Graduated summa cum laude and elected a member of Phi Beta Kappa
- Thesis work recognized as a top 10 physics breakthrough in 2012 by Physics World