# Teaching Professor: Video Intro

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#### Interest in position

- Societal impact
  - Critical thinking about data, tech inundation
  - Future gen. uses statistics intentionally
- Opportunity to develop curriculum
  - Implement liberal arts learning in technical major
  - Honors research ---> cultivate student interest
  - Computational skills ready for industry jobs
- Teaching <---> research are bidirectional
- It is fun ©

### Teaching values

- Students more than a number ---> learn names
  - Be explicit about your interest in learning
  - Be approachable
- Prioritize students cultivating their own interests
- Cognitive, constructive learning instead of rote calculation (discussion- and project-based when possible)

#### Classroom goals

- Define mathematical ideas in the context of applied science
  - Summarize topics, techniques
  - Draw connections between disciplines
- Refine communication and collaboration skills
  - Emphasize verbal, written explanations
- Develop technical skills in computation, data analysis

#### Addressing the needs of students

- Making discussion space for responsible AI, ethics, harmful historical examples
  - Opportunities for liberal arts-based readings, examples
  - Introducing new culturally relevant examples in class
  - Equity-focused research in genetics
- Making individualized plans to demonstrate student learning
- Making teaching materials accessible

#### Brief research statement

- Statistical genetics, epidemiology
  - Studying correlated binary variables and their statistical properties
  - Modeling evolution time series with limited data
  - Time series clustering in SARS-Cov-2 mutations
  - Bayesian modeling in epidemiology, ecology
- Reproducible and efficient computation
  - The bootstrap to measure uncertainty
  - Bioinformatics pipelines (robustness checks)

## Fit in the department

- Friendly and aim at community building
- Regular volunteer outside job expectations
- Research & thesis mentoring focused on skill, interest development
- Strong computational skills, w/ interest in Python course(s)
- Helping with tutoring lab (4 years experience)
- Actuarial background (club here, exam prep)