

# MATTHEW SAMACH

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## EDUCATION

**CARNEGIE MELLON – HEINZ COLLEGE OF PUBLIC POLICY AND INFORMATION SYSTEMS** **AUG 2018 – MAY 2020**  
Master of Science in Public Policy and Management – Data Analytics GPA 3.85/4.00

*Graduate with Highest Distinction*

- Coursework including Geographic Information Systems, Big Data, Machine Learning, Econometrics, Database Management, Poverty & Inequality Policy, Critical Policy Analysis, Management Science

**UNIVERSITY OF FLORIDA, GAINESVILLE FLORIDA** **AUG 2012 -- MAY 2017**  
Bachelor of Science in Industrial and Systems Engineering GPA 3.43/4.00

- Coursework including Operations Research, Multivariate Statistics, Decision Support Systems, Simulation, Engineering Economics, and Supply Chain and Inventory Analysis

## PROFESSIONAL EXPERIENCE

**HEINZ COLLEGE SYSTEMS PROJECT - PITTSBURGHERS FOR PUBLIC TRANSIT** **JAN 2020 - MAY 2020**

- Collaborated with community advocacy groups to use data from Pittsburgh community surveys, Port Authority of Allegheny County, and the US Census Bureau to build a list of actionable public transit policy recommendations that prioritize effectiveness, efficiency, and equity.
- Models include demand models, variable & capital cost modeling, and Monte Carlo outcome simulations.

**HEINZ COLLEGE – POLICY RESEARCH ASSISTANT** **MAY 2019 – AUG 2019**

- Researched relationship between economic shocks and migration with economics professor Dr. Brian Kovak.
- Used R statistical computing software to manipulate and analyze data from IRS and US Census Bureau.
- Used econometric methods including difference-in-differences models to determine variable causality.

**BRIGHTSTAR CORPORATION – FINANCIAL SYSTEMS ANALYST** **MAY 2017 – JUL 2018**

- Drove the successful implementation of a global tax reporting solution by using systems analysis and UAT testing to identify all failure points in the technology stack.
- Automated data consolidation by building and supporting a financial aggregation tool for financial data that does not fit into Brightstar's traditional financial systems by leveraging SQL and VBA for Excel.
- Built an Oracle Hyperion Planning app to collect, compile, and report data on organizational talent.

**RTI SURGICAL - INTEGRATED PRODUCT AND PROCESS DESIGN PROGRAM, UF** **AUG 2016 – APR 2017**

- Designed an automated, clean room compatible demineralized-bone-matrix putty syringe filling system.
- Designed experiments and analyzed experimental data to prove and optimize design decisions.
- Used project management tools such as Gantt charts to track progress and ensure deadlines are met.

**UF HEALTH SHANDS, MANAGEMENT ENGINEERING ASSOCIATE** **MAY 2016 – APR 2017**

- Helped build and expand a program to deliver medications straight from pharmacy to patients' rooms through DMAIC process improvement model.
- Used SharePoint, VBA programming with Excel and operations research methods to automate staffing assignments to new hospital wings.

**DHL EXPRESS, INDUSTRIAL ENGINEERING INTERN** **MAY 2015 – AUG 2015**

- Designed, pitched, and implemented a system that optimized data repair and analysis for nationwide route design. This project produced a 95% reduction in process time and 300% increase in data analyzed, resulting in more accurate routing models for a fraction of the cost.

## WRITING

- Contributor to Dr. Kris Murphy's *Digital Systems Management: Technology and Information Systems*, 2017

## PROGRAMMING & TECHNICAL SKILLS

- Programming languages: Oracle SQL, Python, R, Stata, Visual Basic
- Other Technical Skills: Linux, ArcGIS, Microsoft Office Suite, Tableau