
Vladimir Dinolov

M.S. Applied Data
Science Portfolio

iSchool@Syracuse

About Me

- Data Analytics Specialist
- Data Science Enthusiast
- Social Impact Strategist
- Business Insights Leader
- Relationship Builder



Data Science @ Syracuse

- Balance of Theory and Practice
- Status as a Research University
- Top Ranked Online Program
- Blended Curriculum with Whitman School of Management
- Multi-industry Data Science Applications



Core Competencies



Core Competency	Course	Project
Describe a broad overview of the major practice areas of data science	· IST 687 - Applied Data Science	· All Projects
Collect and Organize Data	· IST 659 - Database Administration	· Educator Effectiveness Database
Identify patterns in data via visualization, statistical analysis, and data	· IST 719 - Information Visualization	· Erasing the Opportunity Gap in New York Public Schools
Develop alternative strategies based on the data	· IST 718 - Big Data Analytics	· SAM Labs Customer Profiling
Develop a plan of action to implement the business decisions derived from the analyses	· IST 718 - Big Data Analytics	· SAM Labs Customer Profiling
Demonstrate communication skills regarding data and its analysis for relevant professionals	· IST 707 - Data Analytics	· Optimizing Hydroelectric Energy Supply Chains

Core Competency

Describe a broad overview of the major practice areas of data science

A successful data scientist should have a strong background in the “collection, preparation, analysis, visualization, management, and preservation of large collections of information”.

Dr. Jeffrey Saltz, IST 687



Core Competency

Collect and Organize Data

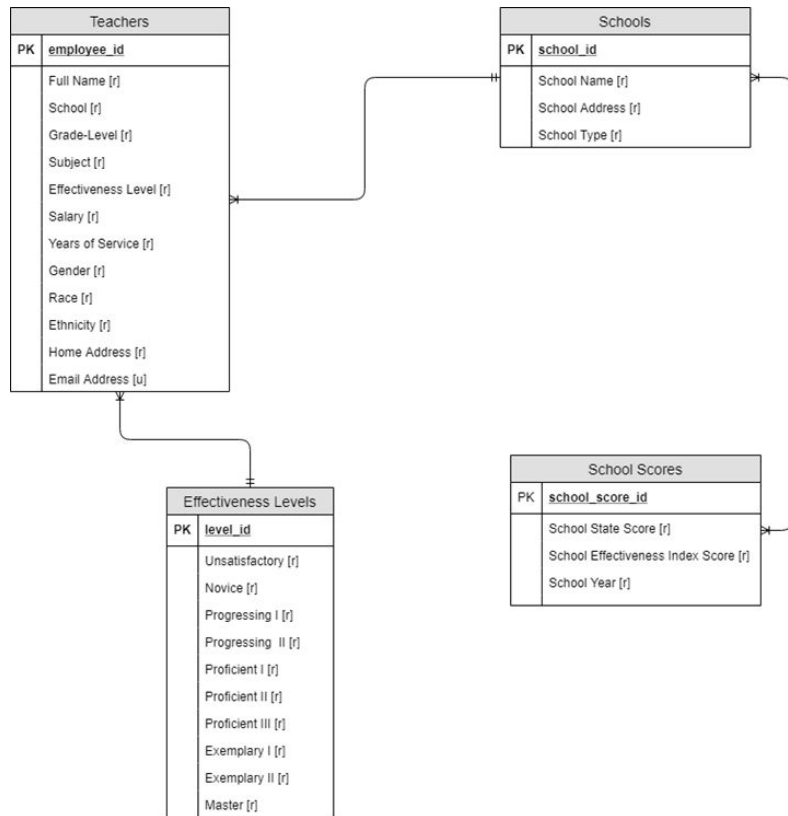
Educator Effectiveness Database

- *Goal was to support a school district in implementing and tracking a strategic initiative, the teacher excellence program*
- *Provided proof of concept for strategic initiative, leading to district-wide adoption*
- *Complex, expansive system involving educators, schools, rankings, and associated metadata*
- *Assisted in decision making for stakeholders like the Board of Trustees*



Core Competency

Collect and Organize Data



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Core Competency

Identify patterns in data via visualization, statistical analysis, and data mining

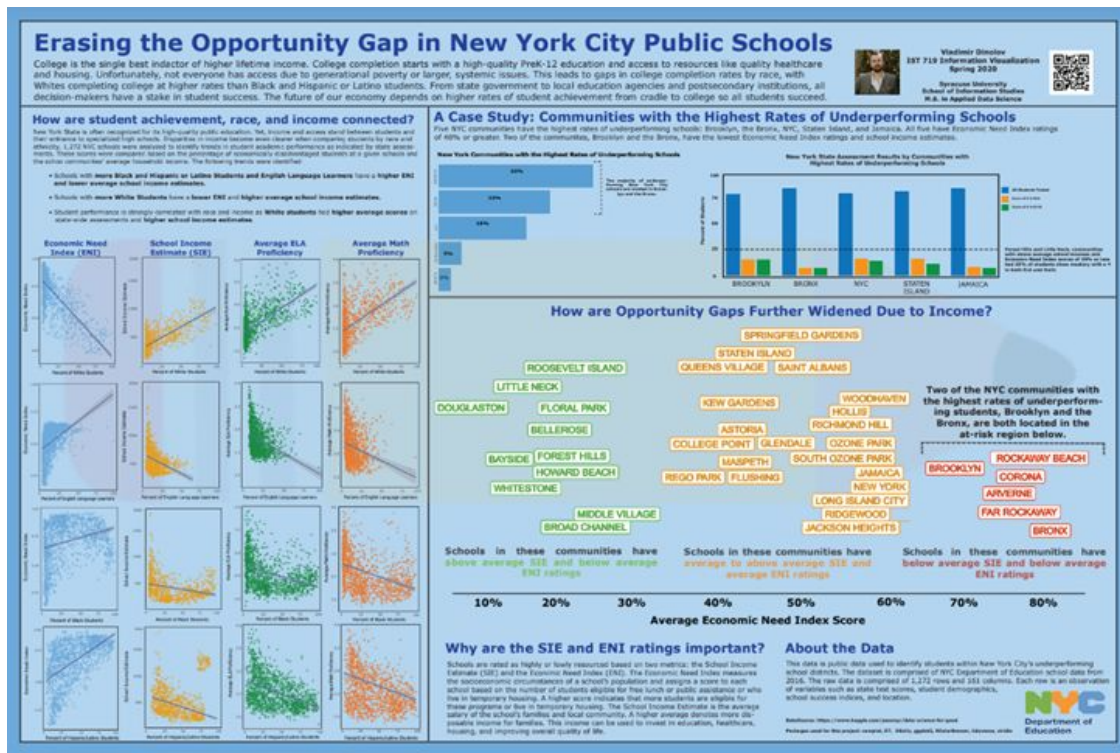
Erasing the Opportunity Gap in NYC Schools

- *Public education data provided from nonprofit, PASSNYC*
- *Examined the relationship between high school assessment scores and race, socioeconomics, and geography*
- *Goal was to identify the most optimal location for afterschool programming to curb learning loss*
- ***Prepared, analyzed, and created visualizations using Adobe Illustrator and R for statistical analysis***



Core Competency

Identify patterns in data via visualization, statistical analysis, and data mining



Core Competency

Develop alternative strategies based on the data

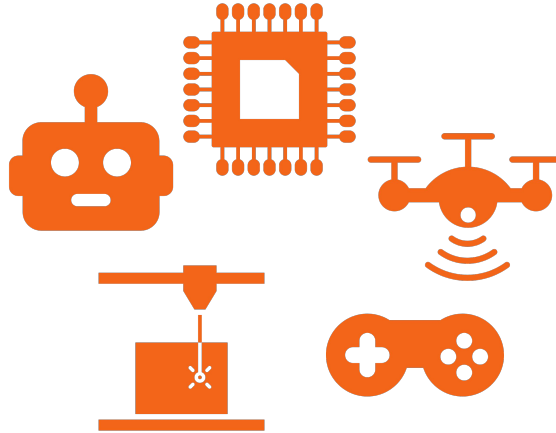
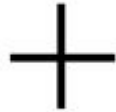
SAM Labs Customer Profiling

- *Project for my Marketing team at current employer, SAM Labs*
- *Goal was to predict propensity to purchase and identify customer profiles for account-based marketing*
- *Models enabled our team to **identify and develop alternative marketing strategies** based on competitor purchases and other significant variables*
- *Outcome was a shift in Marketing strategy focusing on lead nurturing, smart content, and product positioning*

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Core Competency

Develop alternative strategies based on the data



Revenue + Instructional
Expenditure + Grants +
Agency Type

Robotics, Laser Cutting, Video
Game Design, Drones, Modular
Electronics

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Core Competency

Develop a plan of action to implement the business decisions derived from the analyses

SAM Labs Customer Profiling Redux

- *Customer profiles led to insight on customer behavior, finances, and pain points*
- *New insights led to **plan of action to implement business decisions** in the form of marketing strategy*
- *Shifted product positioning to frame our offerings as solutions based on customer profiles*
- *Upgraded company website with call to actions based on solutions, improving lead nurturing and conversion*



Core Competency

Develop a plan of action to implement the business decisions derived from the analyses



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Core Competency

Demonstrate communication skills regarding data and its analysis for relevant professionals

Optimizing Hydroelectric Energy Supply Chains

- *Collaborated with classmates to consult one of the largest hydroelectric companies in the United States*
- *Analyzed energy supply chains to improve operational efficiency of hydro plants*
- *Identified the optimal number of outages based on time and day, resulting in increased revenue and energy stockpile*
- *Communicated complex results efficiently to arm decision makers to act swiftly*

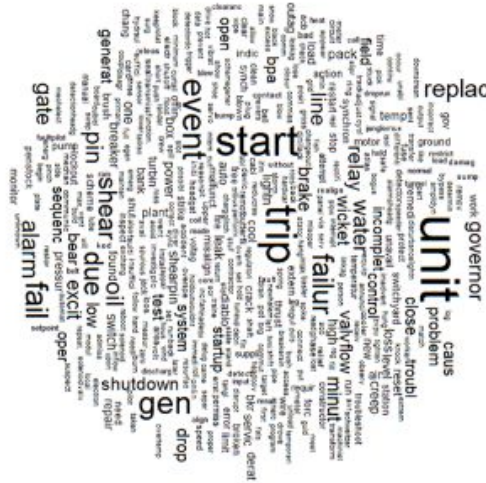
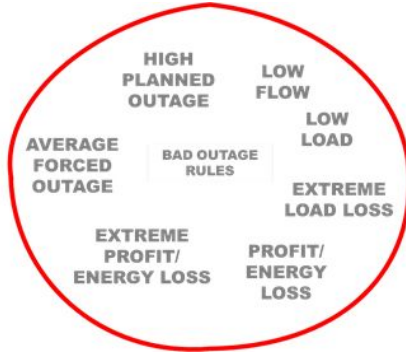


Core Competency

Demonstrate communication skills regarding data and its analysis for relevant professionals



BAD
RULES



Core Competency

Synthesize the ethical dimensions of data science practice

Multiple Projects

- *Data science practitioners are obligated to **accurately represent data** in every step of the pipeline. We must consider how data can be used to **positively change the world** and ensure data is not used to **further harmful rhetoric**. This is most important in fields like education, medicine, economics, environmental science, and politics. Data is a tool, a currency, and most importantly, a vessel for change.*



Closing

Thank you for a transformative experience where I learned many new skills, met incredible students and professors, and enhanced my career!

