

Work Experience with Voytechnology Partners

A Capstone Report by Jack Ferguson

Class of 2023

Overview

For my Chancellor's Honors capstone project, I spent my senior academic year working for a start-up called Voytechnology Partners. Founded by Mark Voytek, a veteran business executive and experienced consultant, Voytechnology Partners is a technology enabled advisory firm that has grown from its infancy to having two clients and several more on the way since the start of my internship.

Over the course of the internship, my duties evolved from basic tasks such as taking notes in meetings and keeping Mark focused on his objectives to complex tasks like compiling and cleaning government data to be used in a dashboard that was sent to a client. I have learned from experienced consultants on how to interface with clients and how to develop good working relationships with them in short order.

My work consisted of two major projects, several smaller projects, and over 75 total hours worked across the two semesters.

The Set Up

When Mark brought me on board, the company was more of an idea than a fully-fledged entity. Mark has compiled an extensive collection of intellectual property from his time in industry and has a dream to use this to help him launch his own boutique consulting firm which he eventually wants to back with AI. In early September I was referred to Mark by my faculty mentor, Jon Holztrager, and my work began by the end of the month.

The first few weeks consisted mostly of an onboarding period in which I parsed through the intellectual property to get a better sense of what we had to offer clients. At the time, there were no clients in the pipeline and the goal was to get the company set up in order to begin consulting in the new year. The first major assignment I received was to create a 'one-pager' which could be used to market to potential clients. The result is on the following page.



WHO WE ARE

Voytechnology Partners is a tech enabled advisory firm that helps high growth business to business (B2B) companies with profit optimization, digital transformational and planned growth. We are committed to helping your business find the best solutions, no matter what the future of your firm looks like or where you are in your journey.

WHAT WE DO

Voytechnology Partners helps private equity and venture capital firms enhance their due diligence process to make better and more accurate investments based on a proven methodology and framework. In addition, High Growth B2B companies, as they raise money, whether they are looking for Angel, or Series A-F investments, will benefit through an updated organization and operational alignment, as well as increased connectivity with their customers and suppliers to proactively prepare for their fund raise.

Our tools include surveys, maturity models, leading practices, methodologies, templates and a growing supplier marketplace. Voytechnology Partners uses technology including artificial intelligence (AI) and machine learning (ML) to support go-to-market recommendations with a focus on several key domains: Sales, Marketing, Alliances and Customer Success and back office GBS operation.

WHY VOYTECHNOLOGY PARTNERS?

We are the trusted partner for High Growth B2B companies to facilitate more engaging relationships between a firm and its investors. We bring a process driven, quantitative approach that delivers improvement based on key metrics, our collaborative onboarding, and our integrated processes for your go-to-market efforts. Simply put, we want to help our customers have the tools to grow, improve quarter on quarter revenues, and perform at the highest level.



Mark Voytek

Founder & CEO



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The 'One Pager' gives a quick snapshot of what the company is, what they do, and why a client should pick Voytechnology Partners for their consulting needs. This particular version is still distributed to potential clients.

By late October, my role began to shift as Mark focused on marketing the brand. Mark would send me additional resources and intellectual property he wanted to be categorized and saved into the company's OneDrive for future use. Additionally, I began to compile the business solutions in folders and match them with potential issues that Mark had identified and wanted to be put into a survey. With the solutions matched to potential survey questions, the next logical step was to create a template survey, which was done through Microsoft Forms. The survey consisted of four subcategories: Alliances, Customer Success, Marketing, and Sales. Each domain had a corresponding repository of files, common problems, and potential solutions which will eventually be linked to the results of each survey.

A New Semester and a New Direction

In early January, the company's direction began to pivot. Mark's focus on the tech enabled part of our advisory gave way to more of a traditional approach. I continued to compile intellectual property that I was sent, but by early February our team had grown to include two more experienced consultants: Alex Beckes and Benjamin Murphy. The growth in the team was to prepare for our first client, Anvilar, which specializes in software and modules for those in the world of education. They were launching a new 'one stop shop' platform with modules to assist with everything from Title I compliance to complaint resolution to family interactions. As work began with Anvilar, I received my first real work as an analyst.

Anvilar had previously been in the charter school sphere and was looking to pivot to focus on public schools. However, in order to do so, they needed an idea of what potential clients were out there. This was where I came in. My major project for the second semester and for the project as a whole, came in the form of market analysis.

Market Analysis for Anvilar

Anvilar presented a basic prompt, but it required a significant amount of set up to fulfill. They wanted a tool to be able to look at states and see which districts were best to target, and then wanted to see some summary statistics within each of those districts. They were specifically looking for larger school districts with a high percentage of Title I schools or with a low percentage of charter schools. They also wanted to know which individual schools had the most students within each state.

The first step in the process was finding the data that would be used to do the analysis. Benjamin, one of the consultants on the team, suggested using available government data on public schools, which was the route I settled upon. Unfortunately, government websites are often not the most user-friendly and the process of simply downloading each of the files needed took over 5 hours. Once downloaded, I turned to a macro within excel to clean the data, keeping only the rows that I wanted, and pasting them into a master spreadsheet with data on over 96,000 schools throughout the lower 48 states and the District of Columbia.

This master file was used to create the dashboard that was eventually presented to Anvillar. The tableau dashboard consists of six total panels, each of which is interactive. The user can start by selecting a state, which will show the counties within the state color coded by how many schools are in the county. The right side of the dashboard contains two tables with data on the size of schools and the size of districts. Finally, there are two panels that show bar graphs that contain information on the top districts by both number of schools and by percentage of schools that are Title I.

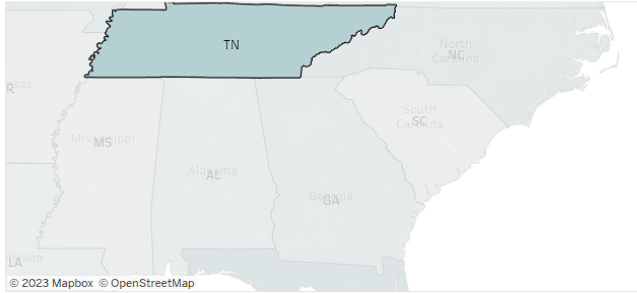
The next page contains two sample screen shots of how the dashboard works, one for Tennessee and one for Georgia, both of which are target markets for Anvilar. A link to the dashboard can be found here:

https://public.tableau.com/app/profile/jack.ferguson2627/viz/Schooldashboard2_0/OverviewDashboard?publish=yes

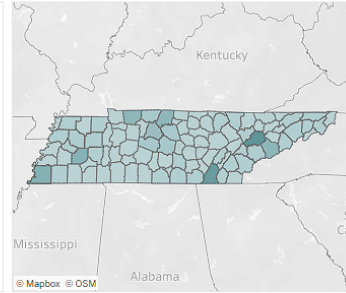
Below are several tools to help give more insight into the number of schools in each state and each district within that state

Anvil

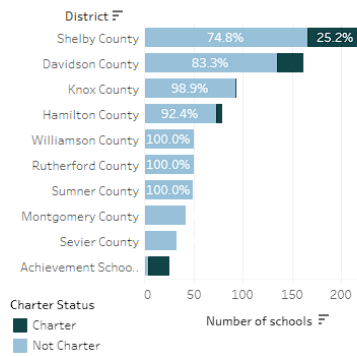
Select a State



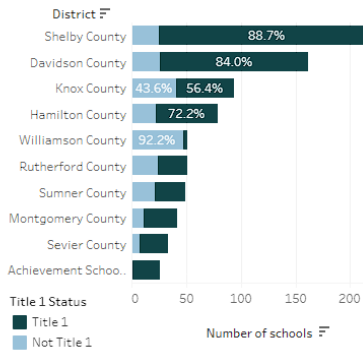
Number of Schools per County



Top 10 Districts by Number of Schools



Title 1 Percentage by District



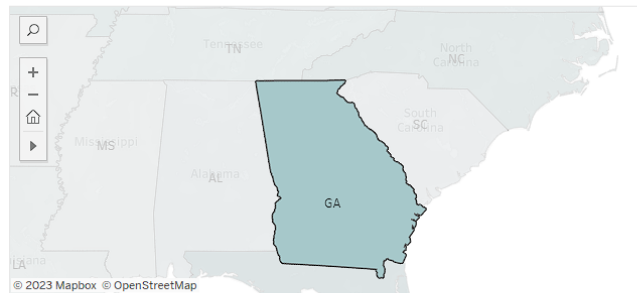
Title 1 Schools by State

School Name	F	Stude..
Central High School		4,097
Tennessee Virtual Acade..		3,036
Bartlett High School		2,839
Collierville High School		2,827
Rockvale High School		2,433
Dobyns - Bennett High Sc..		2,414
Cookeville High School		2,266
Stewarts Creek High Scho..		2,263
Science Hill High School		2,258
Arlington High		2,202
Smyrna High School		2,133
Cordova High School		2,123
McGavock High		2,118
Hardin Valley Academy		2,096
Farragut High School		2,067
Independence High School		2,057

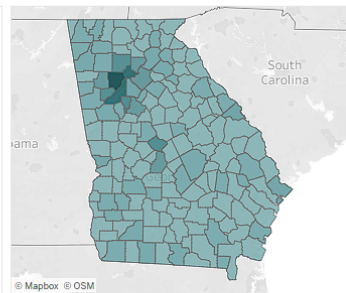
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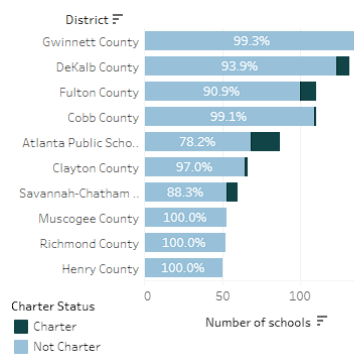
Select a State



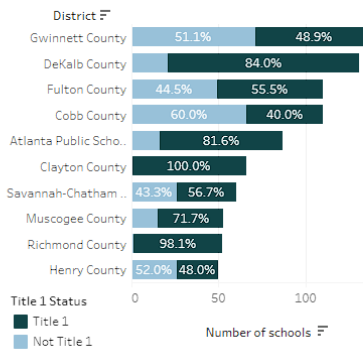
Number of Schools per County



Top 10 Districts by Number of Schools



Title 1 Percentage by District



Title 1 Schools by State

School Name	F	Stude..
Georgia Connections Acad..		5,228
Lakeside High School		4,152
Brookwood High School		3,850
Mill Creek High School		3,812
Eastside Elementary Scho..		3,517
Creekland Middle School		3,431
Northside High School		3,375
Peachtree Ridge High Sch..		3,313
East Coweta High School		3,274
Westside Elementary Sch..		3,266
Parkview High School		3,213
Grayson High School		3,212
Heritage High School		3,132
North Gwinnett High Scho..		3,087
Lowndes High School		3,079
Archer High School		3,061

The dashboard was a hit with Anvilar and started my relationship with them off on the right foot. This tool was used to help identify which target markets they should look for, but the bulk of the outreach and future analysis was done in excel, as is often the case in the business world. Once the dashboard was completed, the next two months were spent focused on either meetings or improving the master excel sheet to include a useful dashboard with live updates of the outreach's progress.

The Excel Sheet

The last major focus of my internship was a continual process of improvement to a new excel sheet which pulled in the data from my previously created master sheet. While I still worked with Mark, Benjamin Murphy began to work alongside me on this sheet as he has substantial excel experience in his background. The main part of the process took roughly a week and a half of intermittent work to figure out the best methods to present our live updates both to the Voytechnology Partners team and the Anvilar team in our weekly meetings, but work on the sheet is still ongoing.

Once the master data was copied and pasted into a new blank canvas, our first step was to break the data out into districts rather than individual schools. Benjamin spearheaded this initiative and used a series of excel functions to aggregate the data into a more usable, but still hefty over 17000 rows for each of the districts in our "pipeline". My primary role in this phase was to find ways to display the percentage of Title I schools in each district and then using a formula to segment each of the districts based on two categories of criteria. The first category was the size of the district, which was broken into four options: Micro (1-4 schools in a district), Small (5-11 schools), Medium (12-40 schools), and Large (40+). This segmentation was then used to further divide the schools into levels of priority. High priority targets had over half of their schools recorded as Title I schools and were either small, medium, or large districts. Medium Priority districts were also small, medium, or large, but had less than 50% of their schools labeled as Title I. Finally, low priority districts were those with less than five schools.

With the districts categorized, the next step was to create a working tracker than would update as the status of the outreach to a district was updated. There are two major parts to the dashboard.

Last Status Date: 5/1/2023			
Pipeline Dashboard			
CRM Stage		Count (Auto Adjust)	% By Status
WIP	Lead Qualification	287	95%
	Discovery	2	1%
	Demo	3	1%
	Proposal	0	0%
	Negotiation	0	0%
	Contracting	0	0%
Closed	Closed Won	3	1%
	Closed Lost	0	0%
	Closed Nurture	7	2%
	Closed Reject	1	0%
TOTAL		303	100%

The table above shows the first part of the dashboard, which tracks how many districts are in each stage of the outreach process. As one of the team members updates their progress in the pipeline sheet, this table will update automatically to give a snapshot of how successful, or unfortunately as is often the case here, unsuccessful the outreach efforts have been.

The second part of the dashboard was more complex to create and shows how our efforts break down by size segment.

Segment Status Tracker				
District Size Segments	District Segment Stage (WIP)	District Segment Stage (Closed)	Total # of Districts in Segment	Total # of Schools
Large (41+ Schools)	23	3	336	24523
Medium (12-40 Schools)	148	3	1409	24519
Small (5-11 Schools)	78	3	3457	22949
Micro (1-4 Schools)	43	2	12660	24870
Current Segment & State Pipeline Notes				
Sourcing Contacts: - Source technology/IT contacts for current Medium and Large Sized Districts (Tools to consider: Family Circle, Application Hub, Survey, Compliant Resolution, Directory Connect, Application Hub, Storage Zone, Org Map) - 10 micro and Small districts in each state for IT sourced contacts and develop targets for Medium/Large Districts - Develop messaging for AB testing for IT Contacts (50/50% AB test)				

This part of the dashboard allows us to see how our efforts are distributed by size segment. Medium districts were a point of emphasis early on, and this let Anvilar see the tangible output of the outreach work that was done in the last month and a half.

Closing Thoughts

As I finish my internship, I can reflect on the eight months of work that I have done with pride. The lessons I learned from Mark, Benjamin, Alex, and the clients we have interacted with will be valuable beyond my time in education. Additionally, these are people that I have genuinely enjoyed seeing every week and will certainly keep in touch with as I continue to grow in my own professional career.

Most importantly, this was my first real foray into the world of analytics outside of a classroom. Learning about a topic is one thing, but having to hit the ground running with tools that are not fully fastened to your toolbelt is an entirely different matter. However, some of my favorite moments in this final semester of my time as an undergraduate have come from being up against deadlines and getting to flex my analytical muscles, which only makes me more certain that I am in the right field.

I leave Voytechnology Partners in a very different place than I found it. To go from two employees and zero clients to five employees and soon to be four clients is remarkable growth and I am very happy to have played a role in the process. While the goal of the business as it was pitched to me, an AI based tech enabled advisory business designed to help small B2B businesses scale, has been replaced in the short term with a more typical advisory firm, the people and the ideas driving this venture are as solid as ever. I have no doubts that Mark and company will continue to do great things and I am incredibly grateful to them for the wisdom and experience they have imparted upon me and the time I spent as a part of this wonderful team.