

BITS AND BYTES

VANGUARD'S TLP NEWSLETTER
FEBRUARY 2021 EDITION

And the **best logo** goes to...
TEAM ADAMS



Thanks to all who participated from the
Engagement Committee!



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Get Involved with the Intern Project!

Michael Afrin and Gray Smith

The Summer Intern Project is a chance for interns to step back from their assigned teams and collaborate to solve a problem. It's an opportunity for them to build something from scratch, meet other interns, and expand their skillset outside what they would learn on their teams. Most importantly, we want the project to be a fun and rewarding experience for the interns. For TLPs, the project is a great opportunity to interact with and have an impact on the interns and their experience at Vanguard. This also is an opportunity for TLPs to take on a leadership role that has a positive impact on the program and company as a whole.

We will soon be looking for 2020s and 2021 early starts that are interested in participating either as an overall lead, an intern team lead, or in one of the several committees whose purpose is to help make the project run smoothly.

If you have any questions or interest in the project, please come to the meeting Gray and I are hosting on Monday, March 8th at 11am. You can view the meeting information in the [Upcoming Events](#) section below!

From the Leadership Desk...

Selected Updates from the TLP Leadership Team

Important March Dates:

- 2020 R2 Announcements scheduled the week of 3/15
- VSP Summit 3/22-3/25
- TLP Q1 Town Hall 3/26

Opportunities to Give Back:

VITA is an opportunity to volunteer in which you will assist underserved, low-income families in our community with preparing their tax returns. This is a great opportunity if you would like to learn more about tax preparation and make a difference in your community. More information can be found [here](#).

Skip Level Meetings:

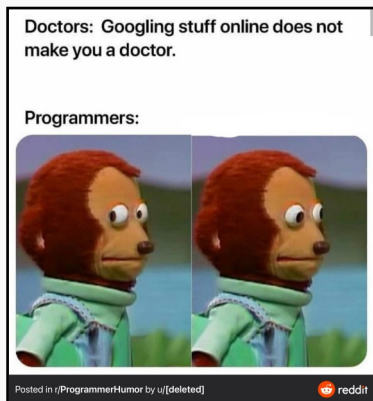
These meetings are scheduled to continue through March. This is an opportunity for you to have one on one time with Jennifer Phillips (Your leader's leader) and they typically occur once a year.

Come prepared by:

- Completing the skip level form at least 24 hours in advance
- Discuss any questions you may have with your leader in advance
- Bring candid feedback about your experience in the program and with your leader
- Consider how you brand yourself in that meeting; share your accomplishments, the impact you bring to your team, and future aspirations if appropriate

More information can be found [here](#).

Meme of the Month



Congratulations Market Watch Challenge & Chess Tournament Winners!

Market Watch Challenge Winners:

- 1st: Fathy Ahmed
- 2nd: Nicholas Hook
- 3rd: Martin Garin Viera

Chess Tournament Winners:

- 1st: David Karminski
- 2nd: Zubair Siam
- 3rd: Martin Garin Viera

The Basics of Artificial Intelligence and Machine Learning

Alissa Vining

This past month, Kat Osadchuk and I gave a presentation to Vanguard Specialty Program participants that included a high level overview of Artificial Intelligence and Machine Learning. If you are interested in hearing it, please check it out on Degreed here! If you are short on time and would like to learn the basics of AI/ML, here are a couple of things you should know.

What's the difference?

Artificial Intelligence (AI): The goal of AI is to incorporate human intelligence into machines to give them the ability to solve any task like a human. The scope for AI is very wide and can perform various complex tasks. Some examples of AI are chat bots, Siri, and online game playing.

Machine Learning (ML): ML is a subset of AI and it is giving the computer systems the ability to "learn". Since we are teaching the machine, it will be trained to do a specific task rather than a wide range of scope (ML is more limited than AI). The learning process is iterative and improves with experience. Some examples of ML are online recommender systems, google search algorithms, and Facebook friend suggestions.

Deep Learning (DL): DL is a subset of ML that uses artificial neural networks (ANN) to automatically detect patterns in data. The ANNs are modeled after the human brain and compares new items with previously known items to make sense of the new item. In DL, the algorithm itself can determine if the prediction is accurate or not but it needs high-end machines and a lot of training data.

Data Science: Data Science uses parts of AI/ML/DL along with mathematics and statistics to extract insights from data. The goal is to make sense of random data clusters and focuses mostly on data modeling. Data Science is not restricted to just AI/ML/DL making it wider in scope.

Types of Machine Learning Problems :

Supervised Learning: Supervised learning is when you have both the inputs and the outputs for the training data. The goal is to have the ML algorithm predict the correct output when given a new input. There are two different types of supervised learning: Classification and Regression. Classification is when the output is a category such as red, blue, car, or train. Regression is when the output is a real value such as dollars, weight, or population.

Unsupervised Learning: Unsupervised learning is when you have input data with no corresponding output variables. The goal is to model the underlying structure or distribution of the data. There are two different types of unsupervised learning: Clustering and Dimensionality Reduction. Clustering is using the data to discover inherent groupings in the data such as grouping customers by purchasing behavior. Dimensionality Reduction is decreasing the amount of variables, characteristics, or features in the dataset to be able to visualize the data and improve the performance of the model.

Reinforcement Learning: Reinforcement learning is training the machine learning model to make a sequence of decisions through trial and error to figure out the solution to the problem. The model will either get rewarded or penalized for its action/decision and the goal is to maximize the total reward. A good example of reinforcement learning is a game AI where it learns by playing itself and gets rewarded for making a correct move and penalized when making an incorrect move (such as losing the game).

How to get involved:

Attend (free and virtual) Conferences such as Women in Data Science Philadelphia (see event info above)

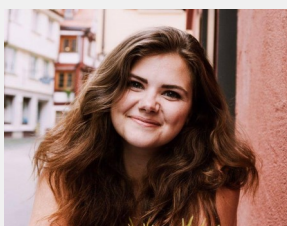
AWS Re:Invent: This year, AWS Re:Invent was a 3 weeklong conference and the if you are interested in hearing some of the presentations the recordings are linked here

Degreed : great resources if you search for Artificial Intelligence or Machine Learning. There are plenty of videos and documents you can use to learn more!

Vanguard Hackathons : Different divisions have hackathons that can give you hands-on experience with Machine Learning and Data Science

Get SMART on AI/ML – CAI series : A series of hour long sessions that go in depth on concepts of AI/ML. Some previously discussed topics are understanding concepts of ML, model evaluation, and Natural Language Processing. The previous session are linked here if you are interested in learning more.

Kaggle: To get some hands-on experience you can check out Kaggle.com which has a lot of data and competitions using AI/ML such as the Titanic Comp (typical beginner set of data).

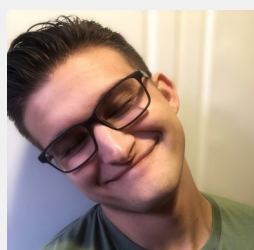


Welcome 2021 Early Starts!

Emily Sweet,
Anthony Michaels,
Tyler Doudrick, &
Ayush Chhabra

joined Vanguard earlier this month!

If you haven't had a chance to meet
them yet, please do so!



SHOUT OUTS

Shakti Patel

Huge shout-out to Shakti for being a great coworker! He is always willing to step up and help out when I'm overwhelmed with a project and willing to provide open and candid feedback without prompting. I know that I can always engage in discussions with Shakti about topics we may disagree on, as he will push me and challenge my perspective while being open himself to different points of view. Shakti has also helped me better understand my future career goals by being open about his own, and is all-around someone that I admire and try to emulate in my interactions with others!

Rob DeGrandis

Organizing TLP 2020 Chess Tournament. Was ran smoothly, got to have lots of fun, and learn new things from our peers.

Abby Holdeman

Read out to change management for her rotational work to get approval for a new continuous delivery pipeline for Vanguard utilizing the open-source tool Spinnaker.

Know someone awesome?

[Click here](#) to shout them out in March's edition!

Alex Diaz

Thank you Alex for sharing various opportunities to get involved in outside of TLP such as HOLA and Toastmasters! He has been a great point of contact and is always excited to talk about his experience and answer any questions about involvement.
- Natasha Meinzen -

Isabel Uzsoy & Christina McMahon

took the initiative to pilot a new capstone project experience for security and GTO crew to the TLP curriculum leads.

Ryan Wolverton

Recently highlighted for his rotation work in his department's town hall, great job Ryan on making an impact! Ryan was responsible for implementing, testing, and elevating this a new feature for the terminator. For just (5) clusters that have opted in so far, we are saving over \$800 a week or \$44k a year. We will keep tracking this one as it grows, and keep pushing it to our clients, but it was a good example worth sharing of the EDO & CBO partnership & collaboration.

Great job, Ryan!

Katie Morris

recently presented a cross-program initiative to VSP leadership, with limited time she pulled together an exceptional presentation and received buy-in from leaders. This is an exciting opportunity to increase collaboration and inclusion across VSP. Expect to see more about this in the near future!

Gray Smith & Michael Afrin

for leading the internship project planning.

Some of our TLPs recently supported the *FemmeHacks Hackathon*, providing guidance and leadership for woman-identifying collegiate individuals. **Iraina Lambe** mentored attendees, while **Natasha Meinzen** and **Jess Tang** mentored, judged, and hosted a workshop for attendees.
Great job ladies!

Natasha Meinzen & Ryan French

joined IMDP this past week to present "Tech to Non-Technical" crew. They did an outstanding job engaging their audience and fielding many questions. Wonderful work you two and great representation of the program!

TLP was represented well at a recent VSP Bridges event. **Ryan French** introduced the topic, while **Alissa Vining** and **Kateryna Osadchuk** did a stellar job on their presentation and facilitation as the keynote AI/ML speakers,

Kirena Manivannan & Kateryna Osadchuk supported the recent IMG Hackathon.

UPCOMING EVENTS

March 2nd: Engagement Committee Participant's Takeover

Our first participant's takeover will air March 2nd. Check out the email from the Engagement Committee for more information and the opportunity to host your own takeover!

March 4th, 11am - 12pm: IT Town Hall

Tune in to hear John Marcante & other leaders share updates on important initiatives across the division. Please submit any questions [here \(link\)](#) and tune into the live event using [this link!](#)

March 8th, 9:30am - 5pm: Women in Data Science Philadelphia 2021

Join in the fun to celebrate women in data science on International Women's Day! [Register Now \(link\)!](#)

March 8th, 11am: Summer Intern Project Interest Meeting

We will soon be looking for 2020s and 2021 early starts that are interested in participating either as an overall lead, an intern team lead, or in one of the several committees whose purpose is to help make the project run smoothly

March 11th, 10AM:

WILS Presentation in Partnership with Chester County Economic Development Council

WILS will be partnering with the Chester County Economic Development Council to host a livestream event encouraging and empowering girls to explore careers in STEM. Tune in to hear a few "tech stories" of Vanguard women in IT, and learn how to build your own investment-themed video game (led by our own 2020 TLP Sophia Trump)! If you know girls interested in exploring careers in technology, or would like to explore yourself, all are welcome to tune in on March 11th at 10 AM EST. [We hope to see you there \(link\)!](#)

March 16th: 2019 TLP Staff Meeting

Check out the recent email communication for details!

March 16th - 18th: HOLA series: "The Evolution of the American Dream"

[Click here](#) to view the event and sign up for sessions!

March 22nd - 25th: Vanguard Specialty Programs Summit

Sign up for sessions using the guide in the e-mail communication sent out on 2/24! Contact your leader with questions!

March 26th, 1pm - 2:30pm: TLP Q1 Town Hall

An updated agenda will be released soon! Join the Town Hall [here \(link\)!](#)