Experiences of a team at PyCon 2018

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For PyCon 2018, six Klaviyo engineers ventured out in search of Python best practices, networking opportunities, and the best food and drink that Cleveland had to offer. In addition, we were joined by two of our recruiters who would help us run our booth in the Exhibit Hall. The engineers came from teams working across the different tiers of Klaviyo's architecture â€" infrastructure, back-end services, application, and front-end. Each of us had different levels of experience and use cases for Python, but we all went with the same expectation of learning.

I had just joined Klaviyo a month prior, and also went with the goal of getting to know my colleagues better. Conferences like these can be a unique opportunity to build and strengthen bonds with teammates so I jumped at the chance. It proved to be an excellent experience for all of us and weâ€TMve each captured some reflections below, highlighting our favorite talk and overall thoughts.

Reflections

Laura Stone

Even though I read the <u>blog post</u> on how to have a good PyCon, I still felt overwhelmed at my first PyCon! It was great to attend the conference with other Klaviyos (I've attended conferences solo in the past and it can be a lonely endeavor), but Pythonistas held true to the reputation of being a welcoming, friendly community. I did things a little differently than past conferences and focused on making connections and learning from my peers at the conference. While I did attend a number of talks, PyCon puts all of the talk and tutorial videos up online (usually within 24 hours of the talk itself), available for free. So, I focused on the hallway track (<u>staffing the Klaviyo booth</u>, chatting with random folks, etc.) as well as attending <u>Open Spaces</u>.

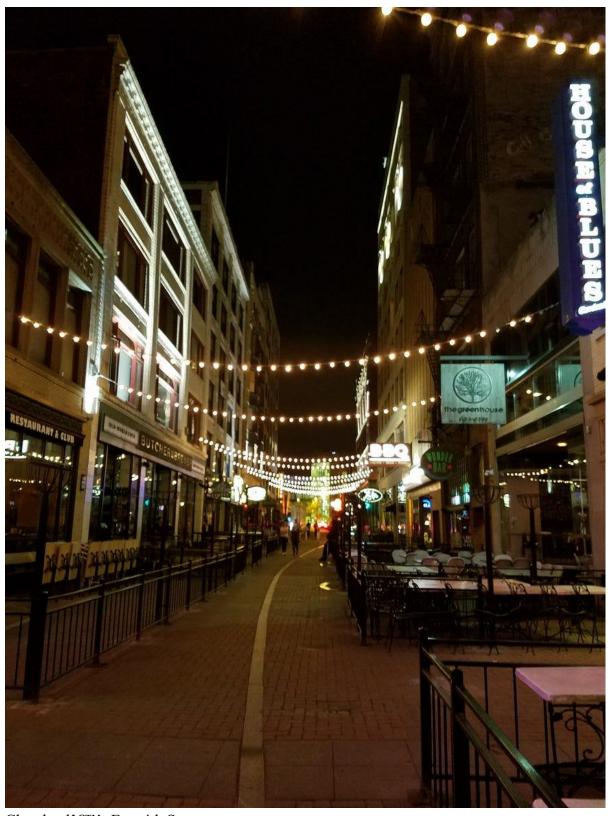
Open Spaces were also in a slightly different format than other conferences I've attended, but I actually liked PyCon's format and am planning on incorporating it into DevOpsDays

Boston this year. There were several large boards with a spreadsheet that showed a number of rooms as columns (in which open spaces would take place) and one-hour slots as rows. Any attendee could fill out a notecard with a topic and place it with a pin on the board (during a particular slot) along with their contact information. Then, people show up and chat together about the topic. I attended several of these sessions and started/facilitated a Sunday open space for folks from Boston to get together. That said, my favorite open space was the SRE-focused one, facilitated by Santi Ordonez, the co-founder of Blameless. We discussed toil, the difference between SLIs, SLOs, and SLAs, as well as the concept of error budgets. I also met some awesome people who I've connected with on Twitter and have been continuing our conversations there!

Nick Hoffman

I am an engineer at Klaviyo working on reporting and segmentation, and I've been at Klaviyo for just under a year. PyCon 2018 was my first Python conference, and it was great! I decided to focus a lot of my time on the talks, and several of them really stood out.

The first talk I went to was "WHAT IS THIS MESS?� — Writing tests for pre-existing code bases which covered a topic near and dear to me, testing! The talk was very well done and covered some best practices when working with a legacy code base to increase test coverage and make changes as confidently as you can. I followed that talk up with Using Python to build an AI to play and win SNES StreetFighter II which was a lot of fun. The speakers did a really interesting project that involved hooking up Python and machine learning tools into a game emulator. Something I particularly enjoyed was the time they spent discussing the details of integrating Python with the emulator and the effort they put into tuning the model. Python 3: ten years later was cool because I learned about some issues during the early stages of the Python 3 transition that I wasn't aware of, as well as the fixes the Python contributors put in place to address them and the lessons learned from the process. It also got me very excited about all of the newer features in Python 3 that I haven't started using yet like f-strings and dataclasses.



Cleveland's East 4th Street

In addition to all of the Python focused activities, I had a great time exploring downtown Cleveland with my fellow Klaviyos. The first place we went to for dinner was The Greenhouse Tavern on 4th Street, and it became a team favorite for the quality and variety of food. Saturday night we went to Punch Bowl Social on the waterfront for some beer and darts which was great. We didn' settle who was best at darts, engineering or recruiting, so we might need to get a dart board for the office to determine the champions once and for all. In the mornings I found REBoL coffee to be a great place to grab an americano before the conference sessions started.

Their chocolate banana muffins were also excellent, and went perfectly with coffee! For PyCon 2019 I would definitely recommend staying downtown, and I would love to go back to our old favorites as well as explore some other areas.

Greg Yu

This was my second PyCon, having previously gone to the 2016 PyCon in Portland, Oregon. My experiences have taught me a few lessons:

- The talks are great, but don't make it 100% of your schedule
- There are a variety of criteria for attending a talk, don't focus on just one
- Be social!

Going into PyCon for the first time, the temptation is to attend every talk that looks interesting or relevant. Not only will this be mentally exhausting, but you'Il miss out on things like the "hallway track� or other opportunities to network at booths or Open Spaces. Fortunately, all PyCon talks are available online after the conference so you should never feel anxious over missing one.

Talks may appeal to you for a number of reasons: the content is relevant to your job, it goes in depth in an area you find interesting, it's an intro to a topic you've always wanted to learn about, or the speaker is exceptional. Try to find a talk that fulfills each of these and you'll have a more fulfilling PyCon experience.

Conferences are a great time to network and hear other perspectives. Talk to people, be a welcoming member of the community, and share what you're working on. It's an opportunity to confer on best practices and new technology. As someone who recently joined Klaviyo, it was also an excellent opportunity to get to know some of my coworkers and build a rapport.

My favorite talk was Pipenv: The Future of Python Dependency Management in which Kenneth Reitz, Director of the Python Software Foundation and author of the request library, discussed the recommended way to manage requirements. Having dealt with the management of dependencies across multiple architectural tiers and within many internal libraries, I am familiar with defining both a minimal set of requirements and a known blessed set of locked requirements. There were a few approaches to this in the past, but none were officially supported which made it difficult to drive adoption. Pipenv follows the same approach used in other programming language communities (JavaScript, PHP, Rust, Ruby, etc.) of defining a lockfile which should be committed to source control. In addition, Pipenv handles virtualenv management for you automatically. While the talk (and Pipenv) doesn't necessarily touch on anything surprising, it's a welcome source of direction to a longstanding problem in Python development.



Klaviyo's Exhibit Hall booth

Neill Silva

Of all the talks I listened to during PyCon, Jack's talk HOWTO Write a Function was my favorite. It sounds like a basic concept â€" functions are functions, right? Given that most talks only have 30â€"45 minutes to get through a presentation and take questions, it can be hard to find topics to deep dive on. Jack focused on the intricacies of a function, best practices, and his opinions from his 12+ years of Python core development experience. This made for a pointed, thoughtful, and easy-to-follow talk, and I left the talk thinking about all the opinions he brought up, and how I could improve on my function writing in my day-to-day work.

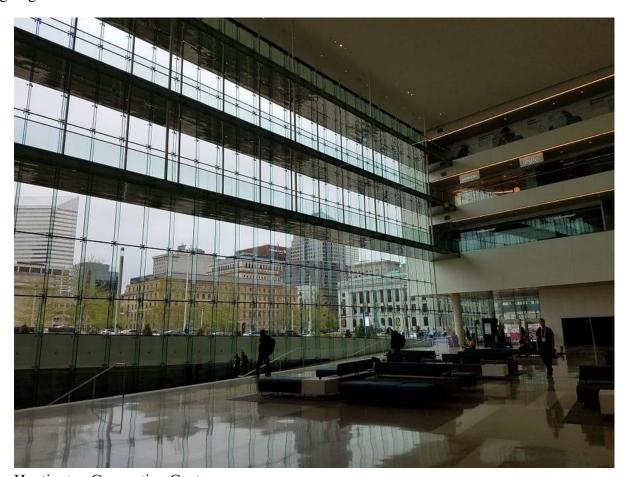
As a first timer to PyCon, it took some time to get a grasp on what the skill level of talks would be going in. The talks ranged from introductions to technologies in the Python ecosystem to highlevel process discussions, like How Netflix does failovers in 7 minutes flat, and talks focused more on developer mindset such as Surviving (and thriving!) when you are overloaded (another favorite of mine). Whatever your interest and skill level, there are talks at PyCon that will help improve your career, professionally and personally. Iâ€TMd recommend any company sending engineers to PyCon include all levels of experience to make the most of leveling up your team through the different talks.

This was also my first time to Cleveland, and as a newfound fan of the town I highly recommend anyone going to next years PyCon have dinner at <u>The Greenhouse Tavern</u> on E 4th St. They had some of the best chicken I have ever tasted (get the bucket!), and we ended up there for 2 of our 4 nights for the conference â€" it was that good.

Andrew Kannan

This was my first PyCon, and it was super fun! I definitely fell into the trap of too many talks. In retrospect, I wish I would have spent more time networking and attending the "hallway track.� The talks I attended were great, but they're all available on YouTube after the conference (and you can listen to them at 2x speed). Most of the networking I did do was during breakfast. It was great hearing other engineers' perspectives on Python and talking about the work they are doing with it. Don't be afraid to sit down and start conversation with strangers! PyCon attendees range from beginners to experts, so it was great to hear perspectives from all types.

One of my favorite talks was <u>User Focused API Design</u> by Renato Oliveira, the founder of a software company in Recife, Brazil. His main thesis was that when developing UIs and UX, we typically take a very iterative and data driven process, but when developing APIs, we might not spend the same amount of effort to really validate what we're building is delightful and easy to use. Renato makes the case that we should apply the same sort of design processes to our API designing.



Huntington Convention Center

Dan Subak

My favorite talk was <u>HOWTO Write a Function</u> â€" Jack Diederich does an excellent job advocating for readability and presents a number of clear guidelines on how to improve your code. The talk is about Python but the lessons hold across any language, and it's always great to be reminded to write code with its maintainers in mind. Another one that resonated with me <u>Bowerbirds of Technology: Architecture and Teams at Less-than-Google Scale</u>. Huge tech companies have great solutions for difficult problems and it's tempting to want to emulate

them when solving your own technical challenges. Sam Kitajima-Kimbrel makes the argument that despite these solutions being best in class, they might not be appropriate for smaller organizations and provides a number of factors to keep in mind while making technical decisions. The guidelines Sam sets forth are great tools to use when deciding how best to deliver features, keep our customers happy, and keep our fellow engineers sane!

This was my first PyCon, so I thought I'd mention some tips other first timers might find useful. Many of the talks were introductory or otherwise very accessible â€" you don't need to be a super experienced engineer to follow along on most of them! If you're going with your coworkers, make sure you send people with a variety of experience levels; everyone will take away something different. The poster session on Sunday has a lot of neat projects you might not have otherwise known existed so make sure you get a chance to check them out! If you want to check out some of the sponsor booths but don't want to contend with the crowds, it tends to be a lot quieter in the expo hall while talks are happening. Lastly, if you're staying downtown Barrio has some great build-your-own tacos â€" highly recommended!

For next time

We left PyCon 2018 with greater appreciation for Cleveland, respect for the Python community, and a number of talks to share with the rest of engineering.

We also had some takeaways for our next conferences.



First, despite how well we did with a few boxes of swag and decorations shipped overnight, we should have spent a bit more time in advance planning the booth design. We will be speaking with other engineers for advice on what draws them to a company's booth and what can make it a more effective tool for recruiting.

Second, no matter how many warnings you get, talks are more exhausting than you think. You cannot (and should not) pack your schedule with 100% talks. The â€æhallway trackâ€� and open spaces are a great way to engage with the community and can provide a welcome break from slides.

Finally, be sure to enjoy the host city. Spend some time outside of the conference with your colleagues and relax $\hat{a} \in$ " you won $\hat{a} \in$ TMt regret it.