

Building a Data Team in the Year 2020

AAS 237, ATDS 2021





Building a Data Team in the Year 202X

AAS 237, ATDS 2021





Who is this talk for?

Those who are looking for more support from their advisors/supervisors.

Those who are on the job market.

"How will this team/company support me?"

Current & prospective managers, and others looking to support their teammates.



Outline

Background

- Me
- The company

Recruiting and hiring

- For the company
- For the candidates

Work-life balance and wellness

- Logistics
- Empathy

The work

- The day-to-day
- The big picture



Background



Where am I coming from?

2004: MS Physics (dropped out of PhD)

ropped out of PhD) **2017:** Insight Data Science (NY)

2004-2005: odd jobs

2017-2019: Consulting data science (→Manager) co-led DEI, assisted HR w/ 10k+ DS applicants

2006-2011: PhD Astronomy

2019: Sr. Manager of a new data team at WW

2011-2016: Postdocs

2020 March: Conversations about data needs at Radish

April+May: Layoffs at WW; career uncertainty

June: Reconnected with Radish

July: Started as Director of Data Science

github.com/taka-tanaka/astronomy-to-data-science





Background

Radish Fiction

- A mobile fiction startup offering "spicy, bite-sized stories"
- ~50 employees globally
 - Content, operations, marketing teams in N. America (mostly NY, CA)
 - Engineering + product teams in Seoul

Forbes

Meet The Korean Entrepreneur Who Just Raised \$63 Million For The 'Netflix For Serialized Fiction Stories'

Lee's curating experience was an invaluable lesson for his current startup called Radish, a mobile app for serialized fiction which chooses ...

Aug 11, 2020





Serialized fiction startup Radish raises \$63.2M from SoftBank and Kakao

The Radish data team

From 1 member to 6 in 4 months.

2019 Jan - 2020 July: 1 data scientist

2020 July: +Director

2020 Oct: +Data Analyst, +Data Scientist

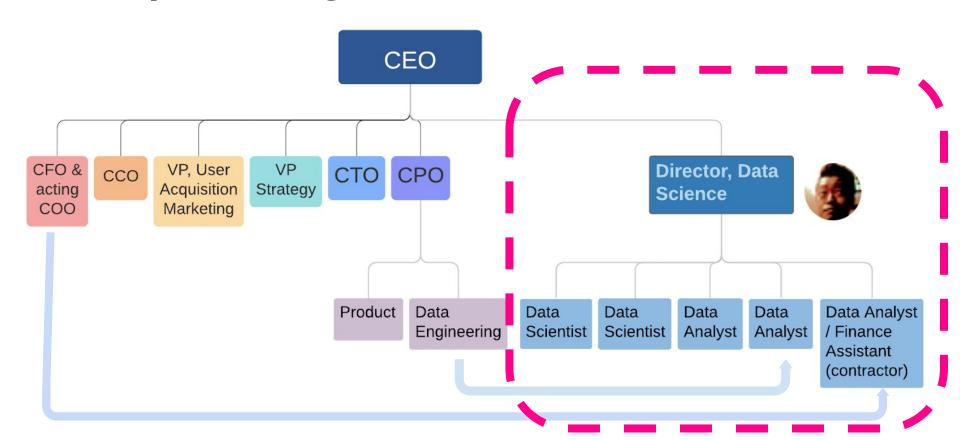
Now: transitioning +2 internal transfers

Data Engineering team of 2 in Seoul.

I've never met anyone in person.



Simplified Org. Chart





Recruiting and hiring



Recruiting and hiring—internal needs

- Assess your needs
 - Take the time to learn about the business, and the state of the data.
 - How is the data infrastructure? Is there a DE team?
 - The data needs of most organizations will evolve as:
 Descriptive => Predictive => Prescriptive.
 Where is the company now?
- Who do you need?
 - Does the work require generalists or specialists? People that can hack together solutions, or those with deep knowledge in specific tools?
 - I personally sought people—
 - with different technical skill sets and communication styles than current members
 - who were willing to ask for help
 - have thought about stress management and self-care

"I'd happily do 15% more work than work with someone who isn't awesome."



Recruiting and hiring—for the candidates

A paycheck is not an opportunity.

Is the opportunity right for them?

- Do company prospects fit their risk/reward tolerance?
- Are they comfortable with the company's business?
- What are possible paths for career growth and personal development?
 Do they align with what they want?
- Perks and benefits? What extras can you offer? (Work out w/ HR first!)
- Can we offer them the kinds of work they're interested in doing?



Recruiting and hiring—inclusively

- Minimize unwelcoming language in the job description.
 e.g.: "driven," "self-starter," "dominant," "competitive."
- Interrogate the experience they need vs. the things they can pick up.
- Interrogate qualifications.
 e.g.: "Bachelor's degree in a quantitative subject, or a demonstrated history of quantitative reasoning."
- Prestige of their affiliations <<< What they did with their opportunities.
- Have a diverse group of interviewers.
- Anonymize data challenges where possible.
- Give the benefit of the doubt when remote interviews go awry.
- Support candidates that you had to decline.



How is the team coming along?

- MS in Financial Mathematics => Finance
 Data Scientist at Radish (Jan 2019)
- PhD in Marine Geophysics => Insight data science
 Data Scientist at Radish
- BA in Drama Studies => TV production => NYC Data Science Academy
 Data Analyst at Radish
- MS in Chemical Engineering => Korean police force => data intern at Radish => MS in CS
 - => Data Analyst at Radish [internal transfer]
- BA in Data Science
 - => Finance Assistant at Radish [contractor across finance & data]



Work-life balance and wellness



Working from home Living at work

I believe the following three things to be true in 202X:

- Employers have unprecedented impact on the personal lives of employees.
- Everyone is going through some sh!t every week.
- You hire people because you're excited about what their A-game and their future will look like.

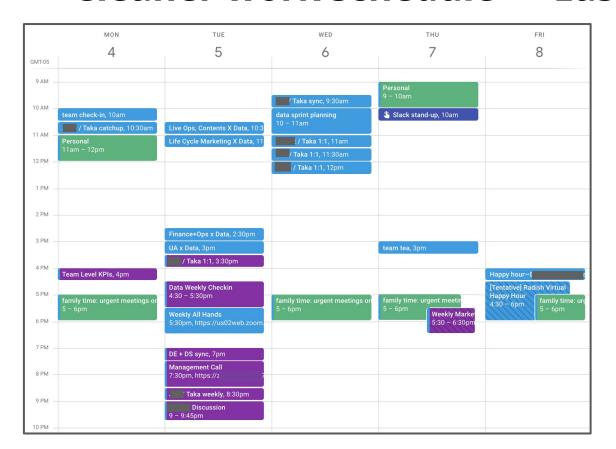


Set boundaries between work & home

- Architect the team's schedule for predictability and flexibility.
 (Purposefully arrange for large blocks of event-free time.)
 => can make non-work meetings more meaningful.
- Loudly & repeatedly encourage breaks.
 - No questions asked.
 - Take breaks yourself to normalize the practice.
- Protect your team's time from stakeholders & leadership.



Cleaner work schedule ⇔ Easier to do life

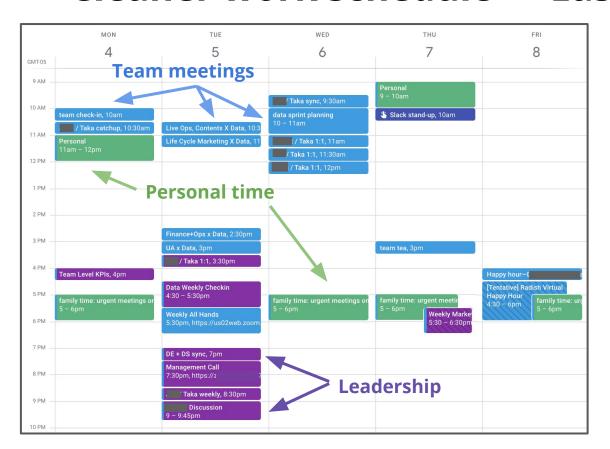


- M sync in morning
- stakeholder meetings (every other week)
 - US All-Hands meeting
- W sprint plan
 - 1:1s
- R

 Slack stand-up, team tea
- F Free!
- Consolidate meetings (stakeholders => sprint plan)
- Normalize blocking off time for personal life.
- Visualize team's schedule.



Cleaner work schedule ⇔ Easier to do life



- M sync in morning
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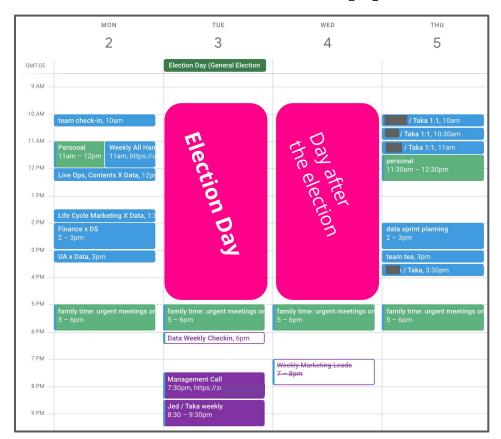
Cleaner work schedule ⇔ Easier to do life



- M sync in morning
- stakeholder meetings (every other week)
 - US All-Hands meeting
- W sprint plan / project sync
 - 1:1s
- R Slack stand-up, team tea
- F Free!
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- Visualize team's schedule.

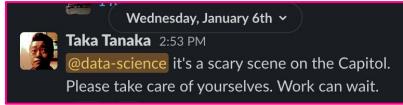


Work should happen around Life



The world is scarier than at any point in most of our lives.

Work should not add more fear.





Support the heck out of your team





Support the heck out of your team

- 1:1 TIME 🥞 IS 🥞 NOT 👋 FOR 🥞 PROJECT 👋 TALK.
- Reassure them. Tell them how much you (and others!) appreciate their work. Share good feedback from rest of the company.
 - "New job jitters" is real!
- Tricky things to balance:
 - Human connection vs. zoom/Slack fatigue
 - Being stuck vs. having other things going on vs. micromanaging
- Are they excited? What would get them more excited? How can you help them bring their A game?

"I treat everyone fairly, but I don't treat everyone the same."



The work



What we do, broadly

Data infrastructure & integration

(Data Engineering in Seoul does the heavy lifting)

Descriptive



Ad hoc analyses

Dashboards

Clustering (behavioral patterns)

Predictive models

- Story performance
- Churn & conversion indicators

Recommender models

(A/B test — built into product / LiveOps workflow)

Predictive











Onboarding

Learn about the company

- Team lead intros
- Stakeholder meetings

Documentation

- Lists of tools & contacts
- Data infrastructure, schemata
- Work guides, checklists

Co-learn

- Buddy-up!
- Walkthroughs, pair-code sessions
- Team lessons & journal clubs

Work/Home

- o Do they have the equipment they need?
- Insurance? First paycheck?

• The right first project

- Achievable challenge.
- Build business context.
- Get familiar with team's toolbox & data schemata.



Chart the course <u>and</u> navigate it

- Clarify priorities—million-dollar impact vs. nice-to-haves.
 - Asana/Jira boards and stand-ups to confirm priorities and when to ask for help.
 - Talk openly about what stakeholders & leaders are trying to achieve.
- Make sure they're feeling accomplished and on-track.
 - o "Ask for feedback when you're 20% done, not 80% done."
 - Deliver feedback at the right time and in the right way.
 - Teaching vs. giving them time to work it out.





Big picture

For leadership:

- Clarify objectives and how the data team can help.
- Set and manage expectations.
 - What takes time? Where are the outcomes uncertain?
 - Step up for your team; protect them from excessive work.
- Provide guidance on where precision is needed, where they need help making a binary choice, and where a data product needs to be built.

For the team:

- Do they understand the company objectives, and how their work ties in?
 - Err on the side of giving too much business context.
- Does their work align with their personal goals and interests?
 - Is this the kind of work you were hoping to do when you signed on?
 - How can I/company help them excel & grow?

Connect the team with the rest of the company

The team has weekly USA all-hands, ~monthly global all-hands, stakeholder meetings. What more can we do?

- Lift up their work to rest of company.
 - Monthly data share-outs.
 - Highlight great work at leadership meetings & All-Hands.
- Give teammates opportunities to speak about their work.
- Ask other teams to tell us more about their work.
- Organize virtual meet-and-greets & happy hours (alcohol optional).
 - "New to Radish" Slack channel => newbie virtual chats
 - Virtual holiday party
 - Communication about office space conversations.



Phew. I've been talking a lot...

In summary...

- **Understand company goals**, the data work that can help, and the skill sets you need on the team.
- Find amazing people whose goals align with the company objectives.
- Support the heck out of your team
 - Logistics: protect their time & wellness
 - Build predictability & flexibility into their schedules.
 - Encourage breaks & set an example.
 - Empathy: Show your appreciation & trust; let others see the great work they do.
- Help them get the work done.
 - Make sure they don't feel alone or lost. ⇔ Give them the space they need.
 - Communicate often about how their current work aligns with their personal goals, and fits in with broader company objectives.
- Meet with leadership often to track progress, direction, and expectations.



Thank you!