

Do Something Unbelievably
Stupid,

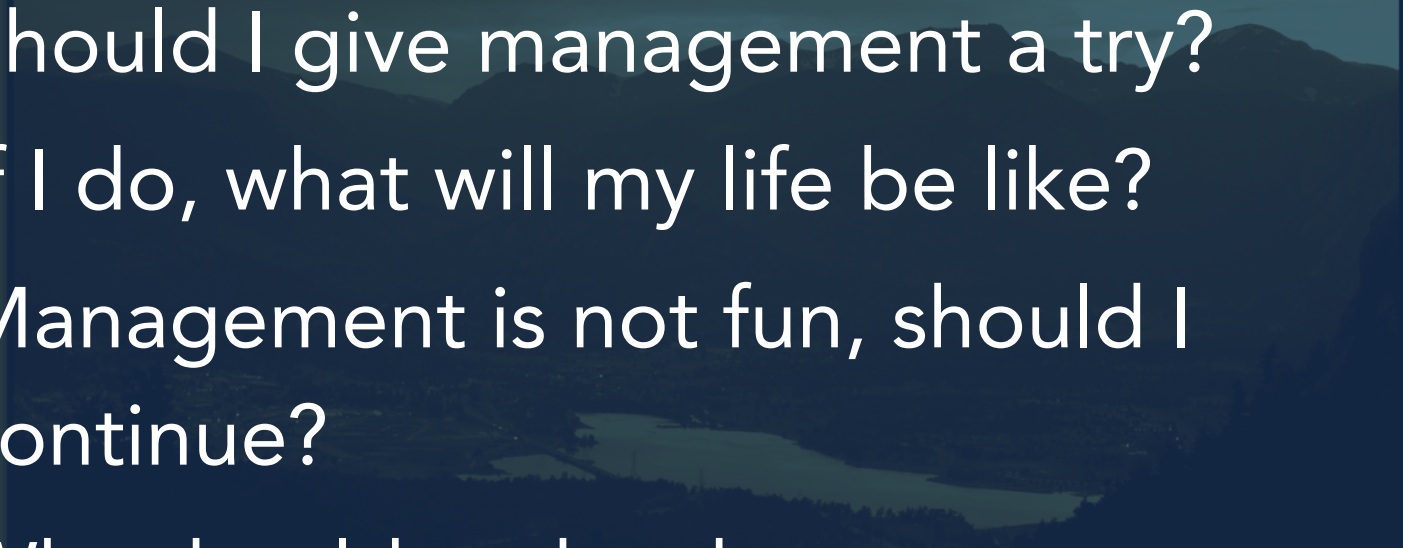
Become a Software Engineering
Manager!

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Joel Crabb, Chief Architect, BestBuy.com

- 
1. Should I give management a try?
 2. If I do, what will my life be like?
 3. Management is not fun, should I continue?
 4. Why should coders become managers?

ASPIRE

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- James Allen

Do You Believe?

- Software is a craft
- Software engineers are artisans
- Small teams kill large teams
- Agile is a state of mind (not a process)
- Revolutions can be won

ASPIRE

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as great as your dominant aspiration."

- James Allen

If Not, How About Believing This?

- Marc Andreessen in 2011
 - “Software is eating the world.”
- Harvard Business Review
 - “When Should a Process be Art, Not Science?”; Joseph Hall, 3/2009
 - Software architecture is called out as art

“You will become as small as your controlling desire;
as great as your dominant aspiration.”

- James Allen

Still Not Convinced?

I wish I could

sling code.

ASPIRE

- Local CIO Phil McKoy on what he would do differently.
9/11/15 (<http://tech.mn/news/2015/09/11/driving-change-with-phil-mckoy-the-cio-of-aimia/>)

- James Allen



Two things happen before you
get to code:

1. Someone funds it
2. Someone decides culture

"You will be only as smart as your controlling desire,
as great as your dominant aspiration."

- James Allen

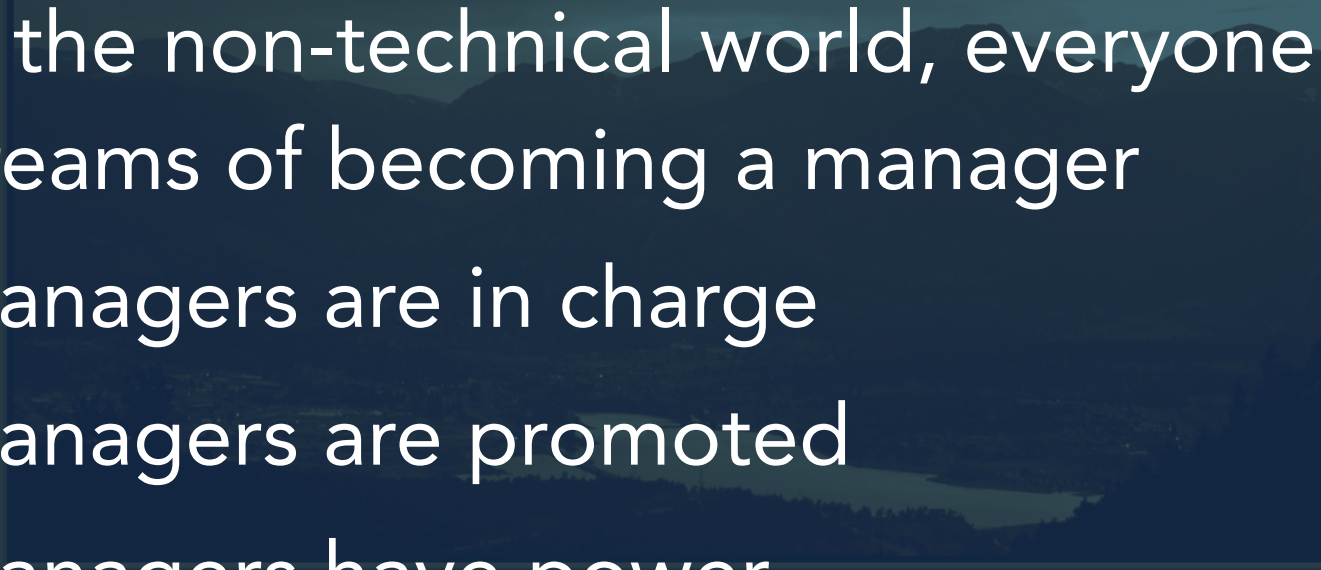
This is a story...

- About the 10 years it took to move from engineering and architecture
- To technical management

- Why would anyone want to do this?

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

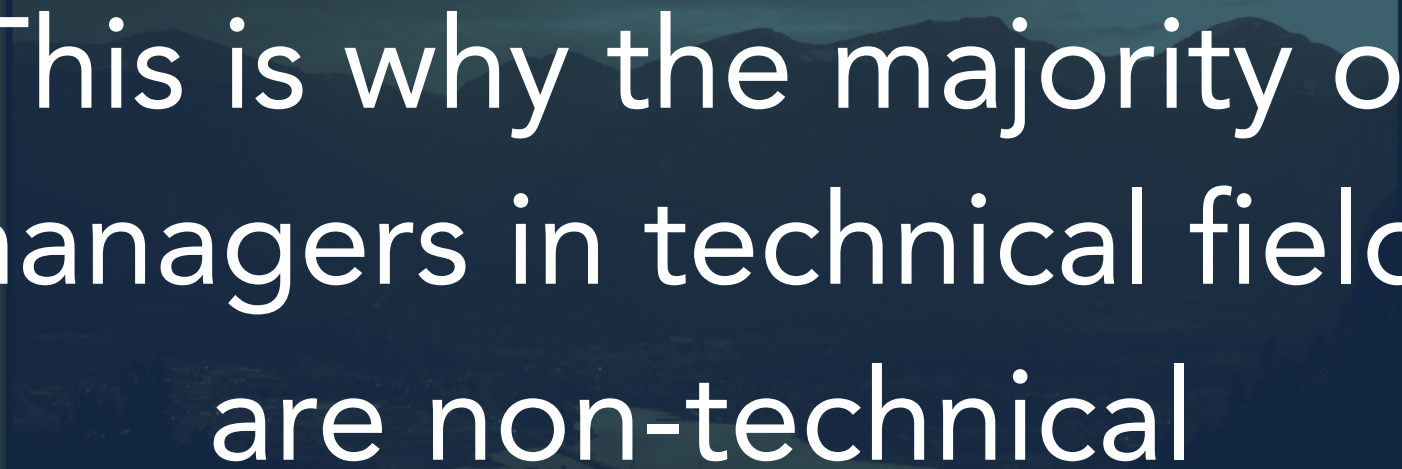
- 
- In the non-technical world, everyone dreams of becoming a manager
 - Managers are in charge
 - Managers are promoted
 - Managers have power
 - Managers get paid more (maybe?)

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

- In the technical world, few people with serious chops wants to become a manager
- Managers go to meetings
- Managers don't write code
- Managers do write annual reviews
- Managers make and give presentations
- Managers worry about budgets
- Managers get blamed for failures
- Managers get paid about the same (true!)

- James Allen

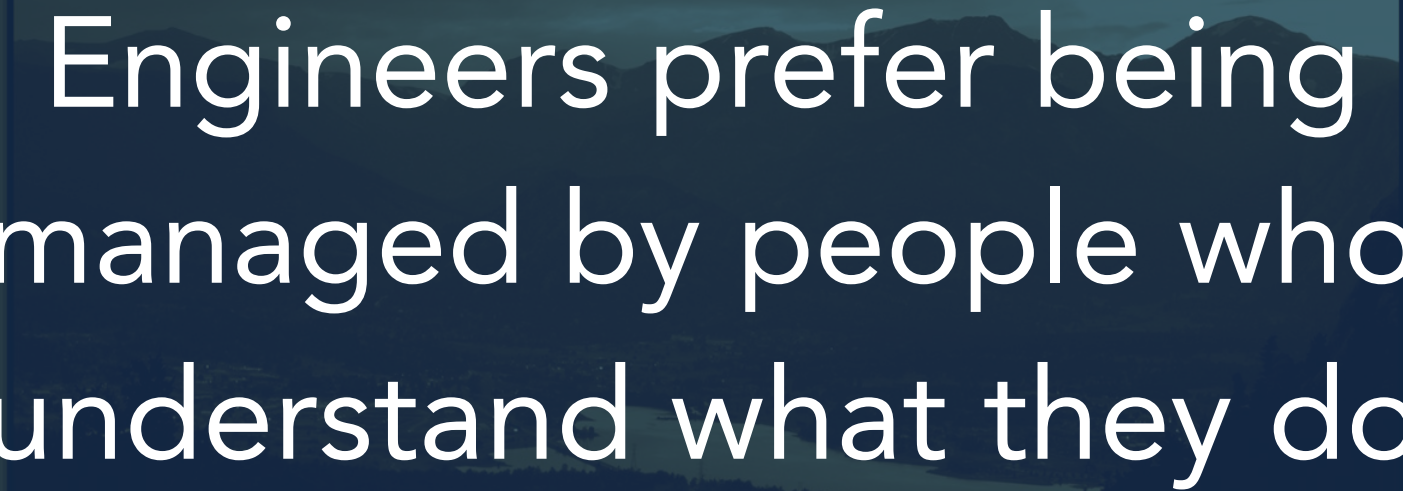


This is why the majority of
managers in technical fields
are non-technical

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen



Engineers prefer being
managed by people who
understand what they do

ASPIRE

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Can your manager:

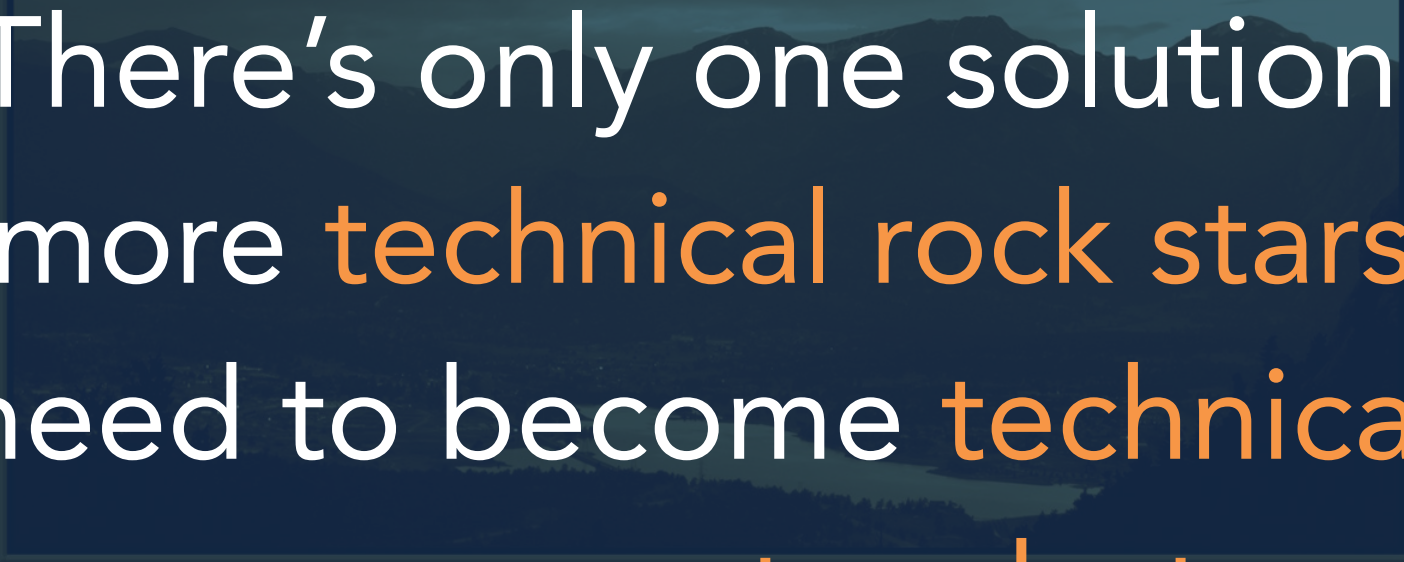
- Write a closure?
- Discuss CAP Theorem?
- Tell the difference between Scala, C, C++, C#, Go, Swift, Clojure, Java, Groovy, Erlang, Ruby, Python, Javascript, etc?

ASPIRE

- Debug your code?

"You will be small as your controlling desire;
as great as your dominant aspiration."

- James Allen



There's only one solution,
more **technical rock stars**
need to become **technical**
management rock stars

ASPIRE

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as great as your dominant aspiration."

- James Allen

But First, Learn to Code!

5 Years of writing code

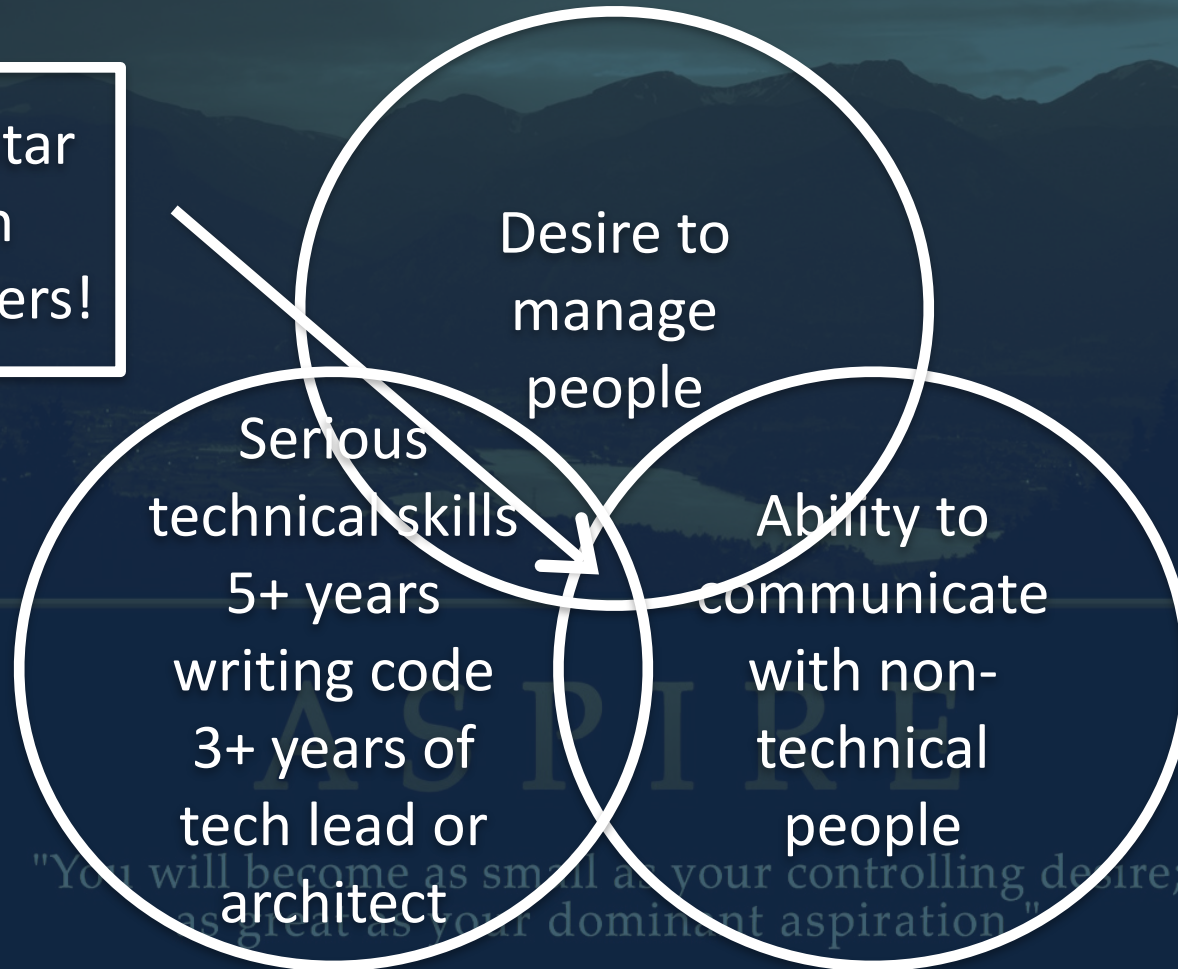
3 Years being a Technical
Lead and Architect

*"You will become as small as your controlling desire;
as great as your dominant aspiration."*

- James Allen

Tech Management is Hard to Find

Rock Star
Tech
Managers!



"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Why Stay Technical for 8-10 Years?

Building technical buckets in
your head for the future

DataStorage

Files RDBMS
Caching NoSQL

Languages

Java Groovy
JavaScript C#
Erlang

Infrastructur

e
Servers
Network
VM Cloud

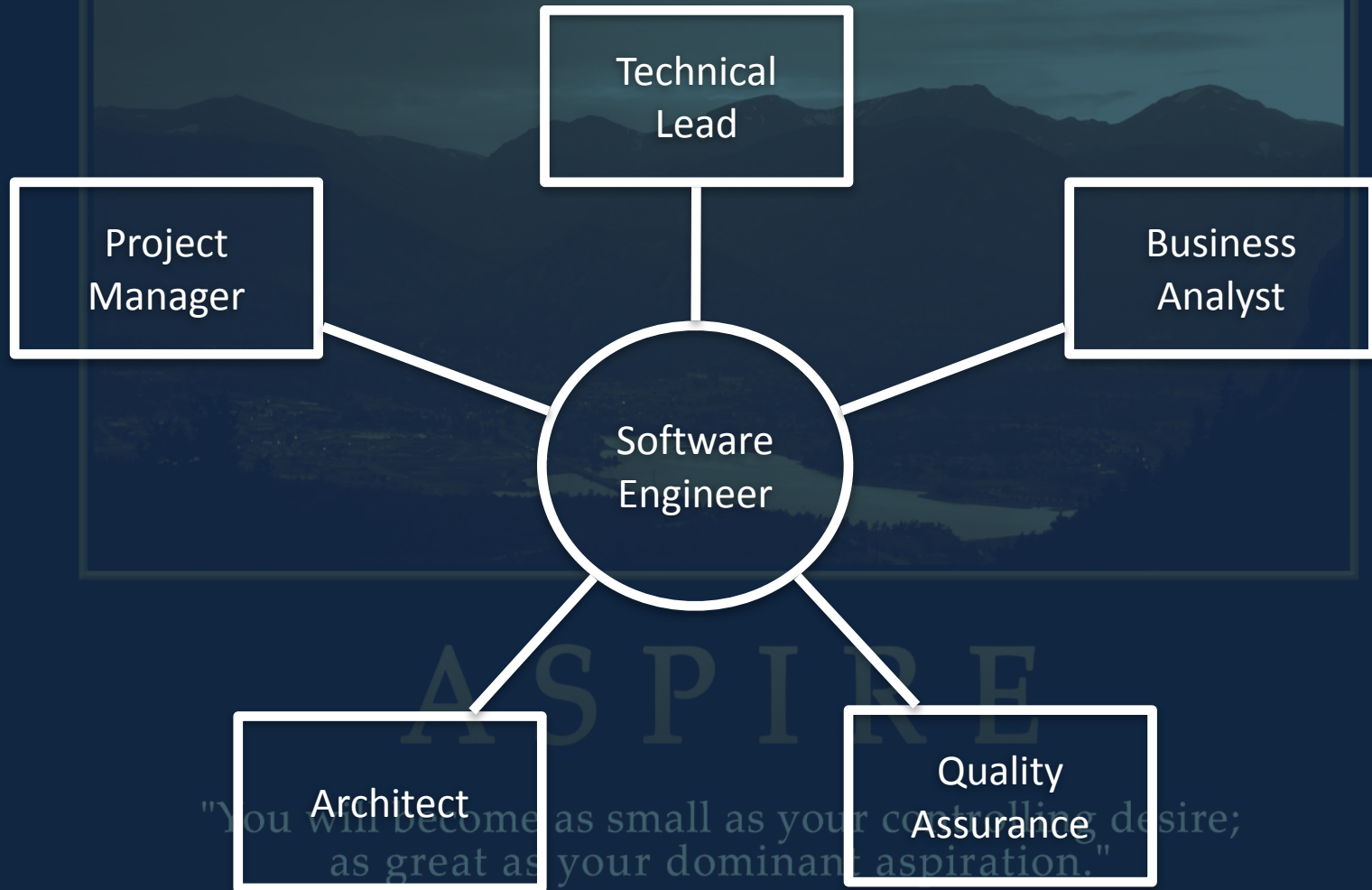
Operating Systems

Unix Windows
Andriod IOS

Queues

JMS MQ Series
RabbitMQ
Kafka

Work All the Roles



ASPIRE
"You will become as small as your controlling desire;
as great as your dominant aspiration."

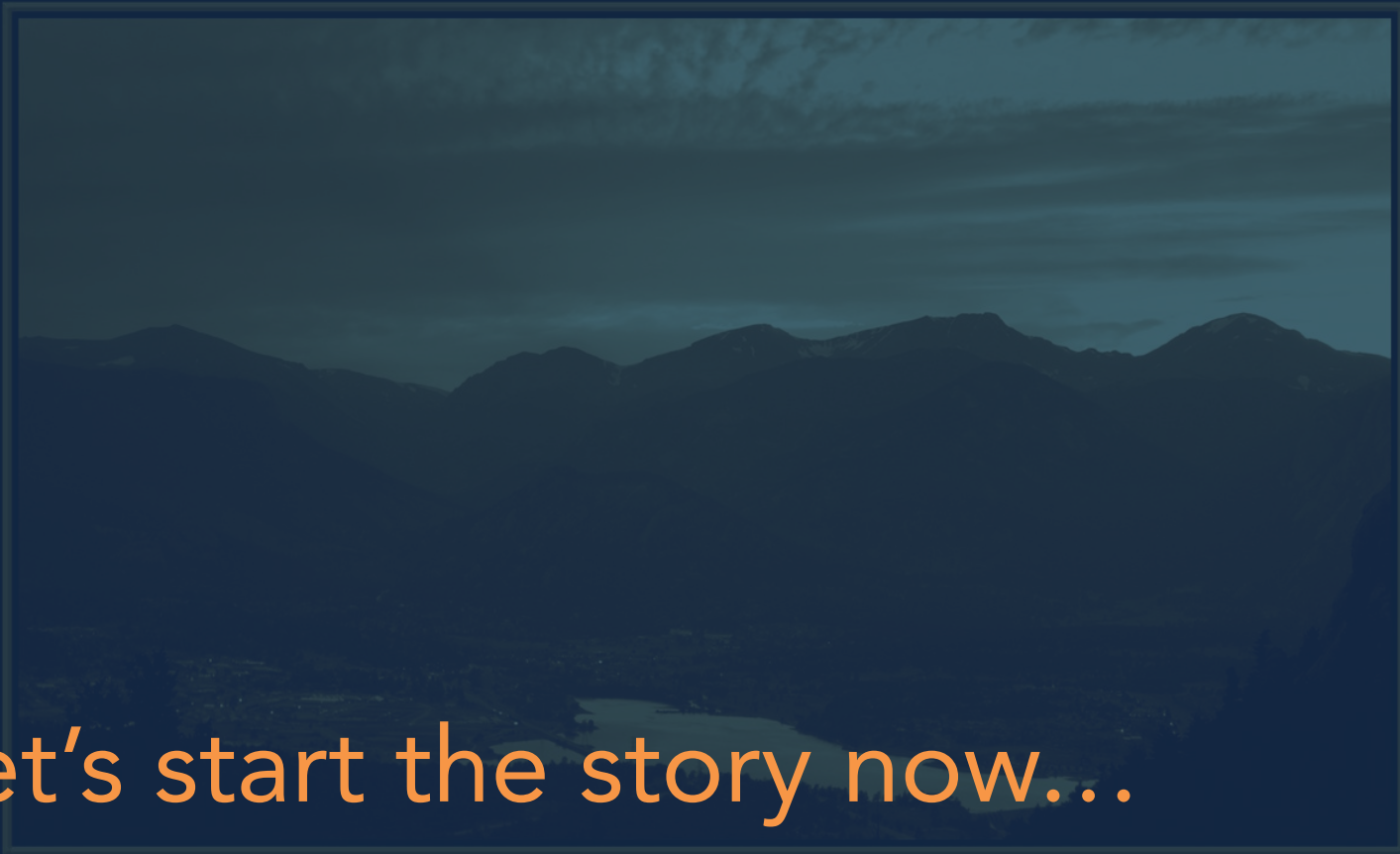
- James Allen

Learn to Communicate

You are probably smarter than everyone else, but have pity on the less fortunate and learn to bring others up to speed at their own pace.

"You will become as small as your controlling desire; as great as your dominant aspiration."

- James Allen



Let's start the story now...

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

In 2005

- I had two epiphanies
 - I was tired of writing web applications
 - In 10 years, I didn't want to be managed by a guy like me
- With 10 years experience writing code in C and Java, what else was I qualified for?

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change

In 2005

- I applied for management roles
 - But no one was interested in talking to me
 - According to hiring managers I had:
 - No experience managing people
 - No ability to speak with business executives
 - No financial background
 - Little hiring/firing experience
 - And many communication deficiencies including
 - Bluntness
 - Overt logicalness
 - Lack of empathy

- James Allen

Time to Change

In 2006

- I decided to up my credentials
 - Started an MBA program
 - Started reading management books
 - Good to Great; Jim Collins
 - First, Break All the Rules; Markus Buckingham
 - The Innovator's Dilemma; Clayton Christensen
- I also started networking

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change

In 2007

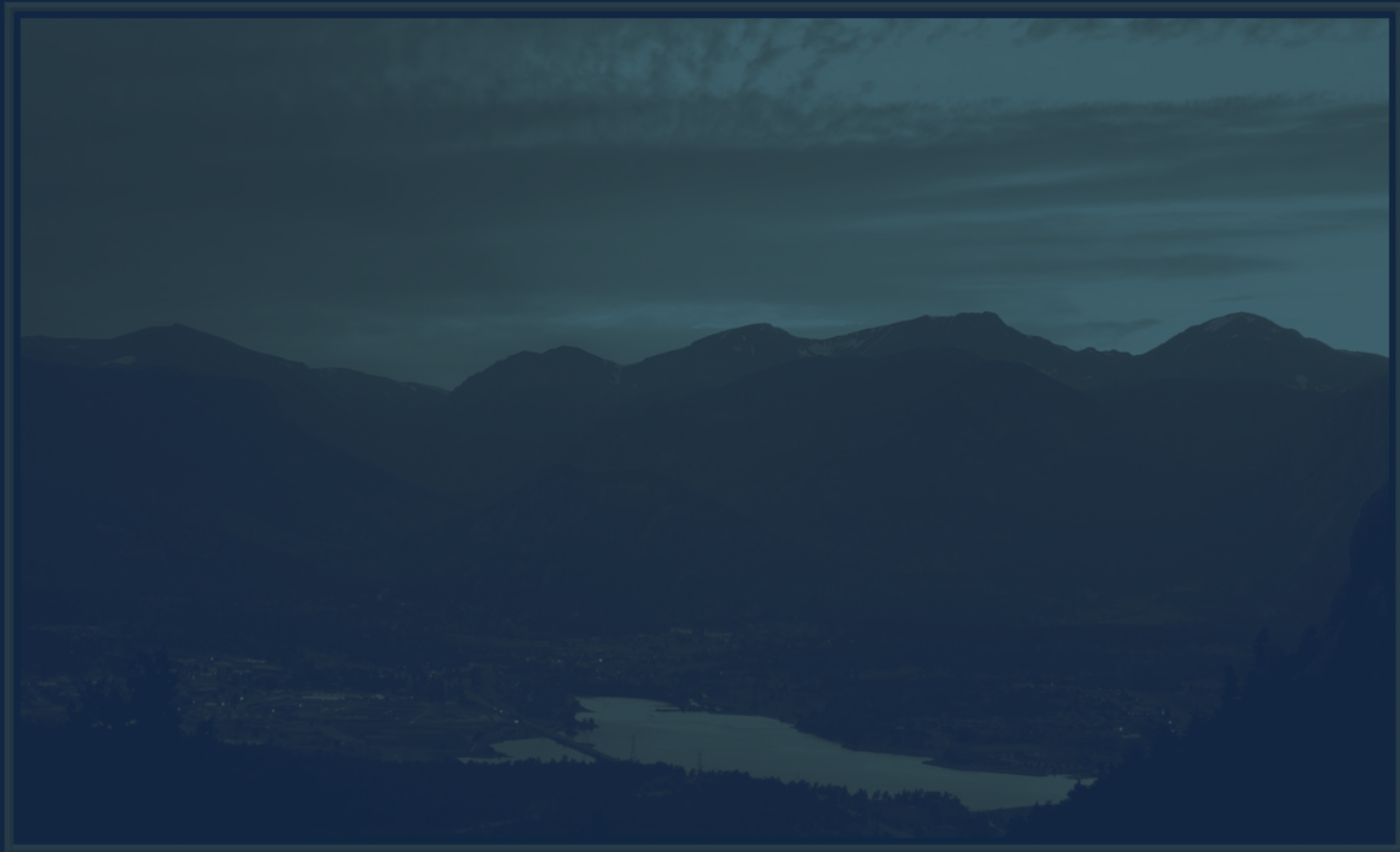
- I got my first management job
 - Networking paid off
 - Showing dedication to management
- I entered a whole new world
 - Leadership
 - Politics
 - Meetings

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change



MANAGEMENT – ASPIRE THE FIRST YEAR

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

First Lesson

Don't

throw out your

ASPIRE
Engineer-ness

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

First Year Management

Your New Life



- Meetings
- Planning
- Team Building
- Politics
- Strategy

ASPIRE

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- James Allen



Meetings

Networking

Political Support

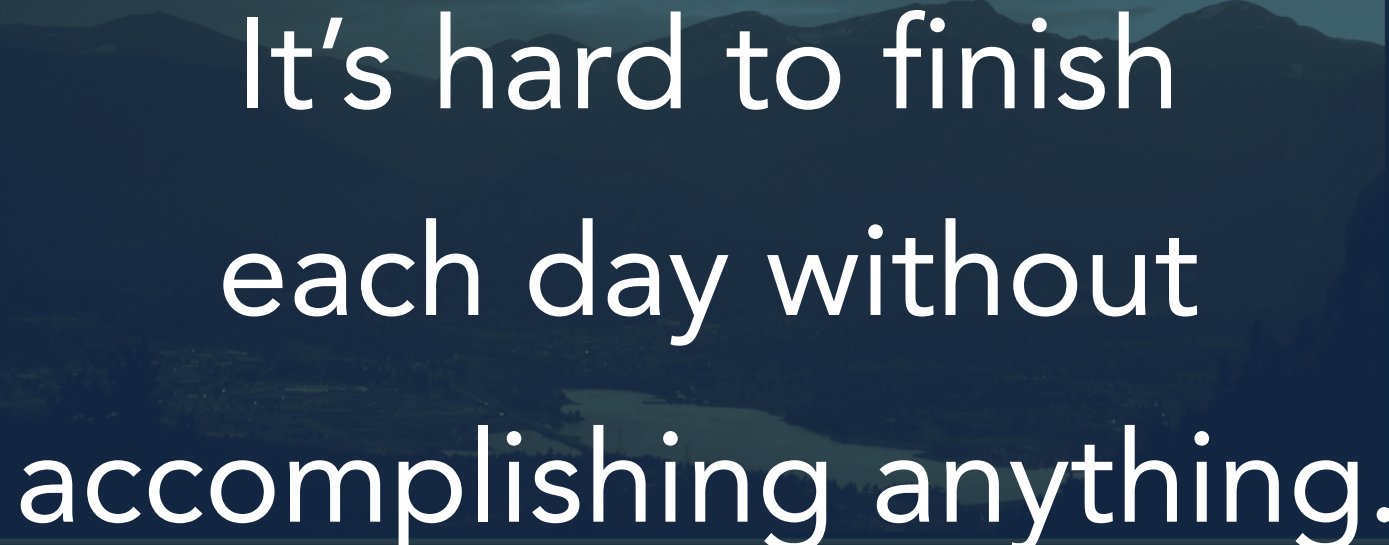
Team Alignment

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

Planning

- James Allen



It's hard to finish
each day without
accomplishing anything.

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

First Year Management

Be an Engineer

- Apply technical patterns and practices to management
- Test and learn
- Decide on outcomes, define backwards to solutions

ASPIRE

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- James Allen

Apply Technical Concepts

- How does CAP Theorem apply to managing people?
- Aren't people really just a set of distributed service APIs?
 - Every day there's a new version of the API

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Second Lesson

People

are harder than

ASPIRE
Machines

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

People are not as Reliable



"You want to be as good as you desire;
as good as you are." - James Allen

- James Allen

People are Humans

- People have problems
 - Their cat is ill
 - Their car breaks down
 - Their family is visiting
 - They lost a bet
 - They're feeling old today
 - Etc.

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

You Manage People

- Define purpose
- Empower
- Engage
- Define Culture

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Stark Realizations

- You are no longer part of the team
- People misinterpret what you say
- Your jokes are no longer funny
- You can't just fix it yourself

ASPIRE

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as great as your dominant aspiration."

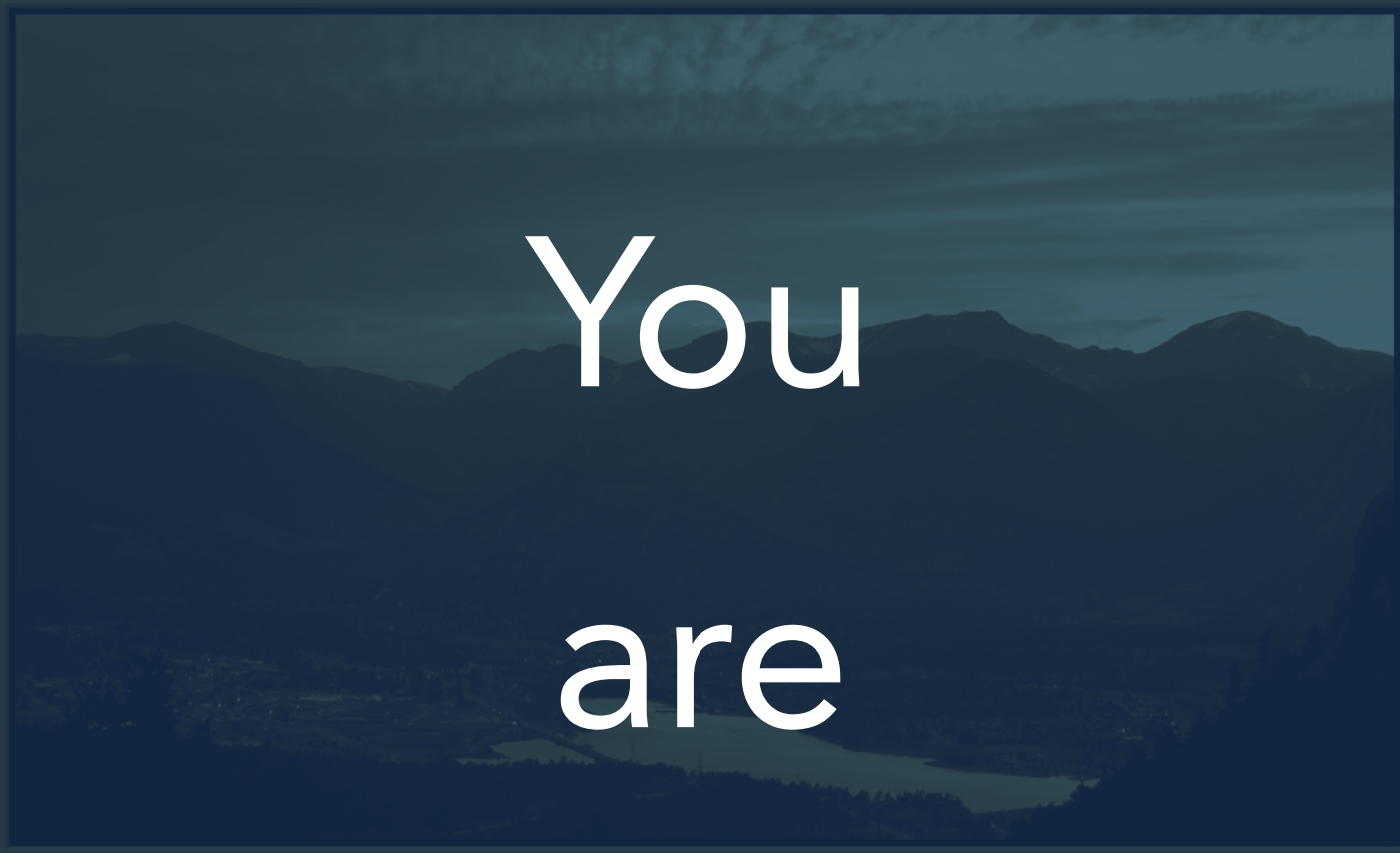
- James Allen

Non-Technical Managers

- Other managers are frenemies
 - They need your help/you need their help

But they can never
match your tech skills

- James Allen



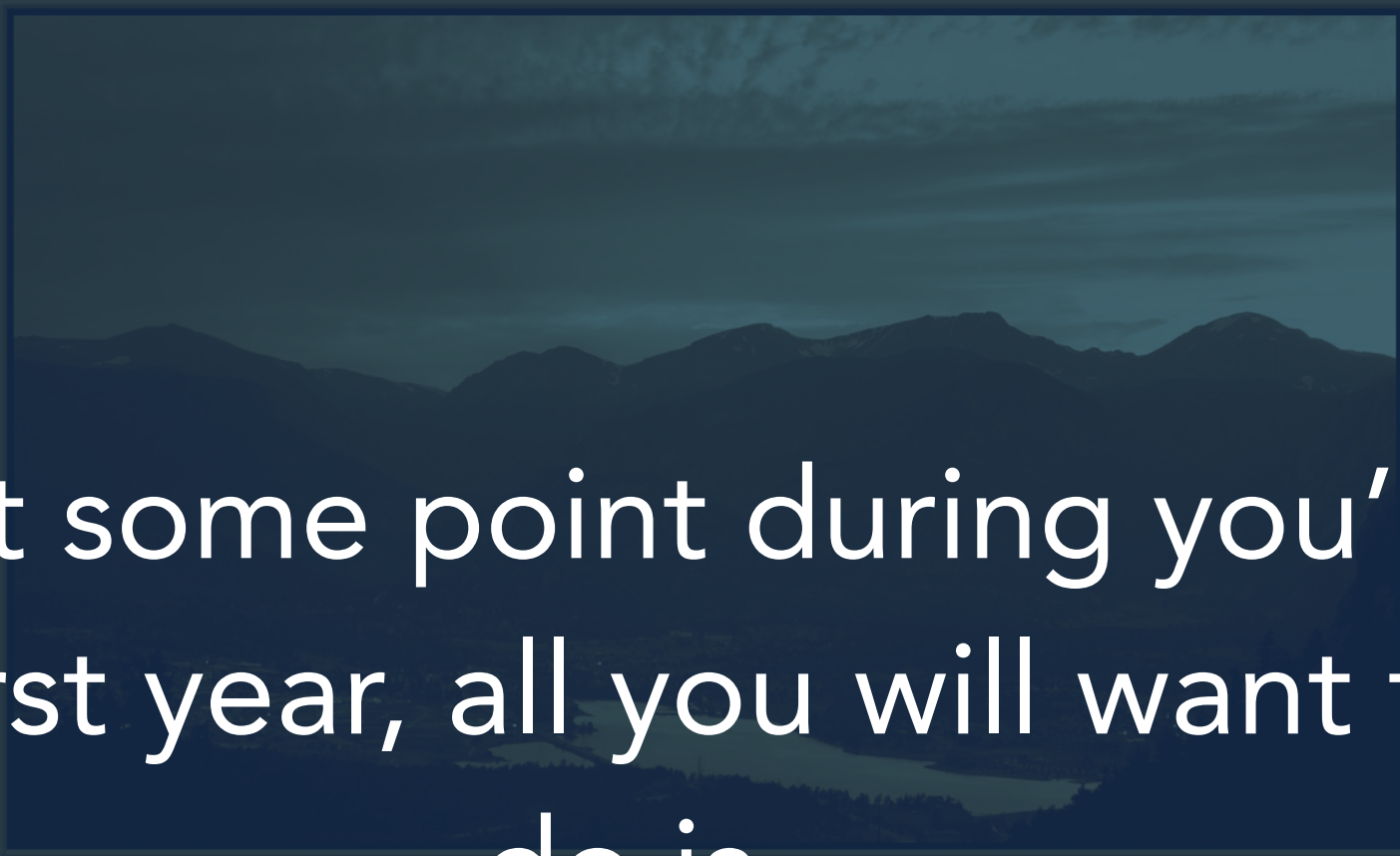
You
are

ASPIRE
dangerous!

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

First Year Management



At some point during your first year, all you will want to do is ...

ASPIRE

code

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Third Lesson

It's ok,

go code!

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

First Year Management



Back to the story ...

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

In 2009

- I quit my first management job
 - My manager left (the Agile proponent)
 - Politics beat me senseless
 - Re-organized from business to IT
- I went back to being an Architect
 - Coding again, yay!
 - Learned Groovy and Grails
 - Learned NoSQL

- James Allen

Time to Change – AGAIN!

In 2010

- I remembered why I left coding
 - I was tired of writing web applications
 - I was working for a guy just like me!
- I still wanted to make the decisions on:
 - What we are building
 - How the culture works
 - Where the money is spent

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change – AGAIN!

Fourth Lesson

Managers decide how

money

ASPIRE

is spent

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change – AGAIN!

In 2010

- I left consulting for good
- Went to Best Buy as an Architect
 - I still wanted to learn more about NoSQL
 - Hadoop to be precise
 - Be part of a team again
 - Rewrite BestBuy.com

ASPIRE

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as great as your dominant aspiration."

- James Allen

Time to Change – AGAIN!

In 2011

- Finished my MBA
- Opportunity struck
 - Chief Architect left Best Buy
 - Rewrite was languishing
- In the past, I would have just left
- Instead, I decided to put the MBA to the test

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change – AGAIN!

Best Buy Executive

"I've seen a lot of plans to rewrite BestBuy.com, this is the first one I believe will work because I think you have what it takes."

"You will become as small as your controlling desire;
as great as your dominant aspiration."

~circa 2011

- James Allen

Time to Change – AGAIN!

In late 2011 – early 2012

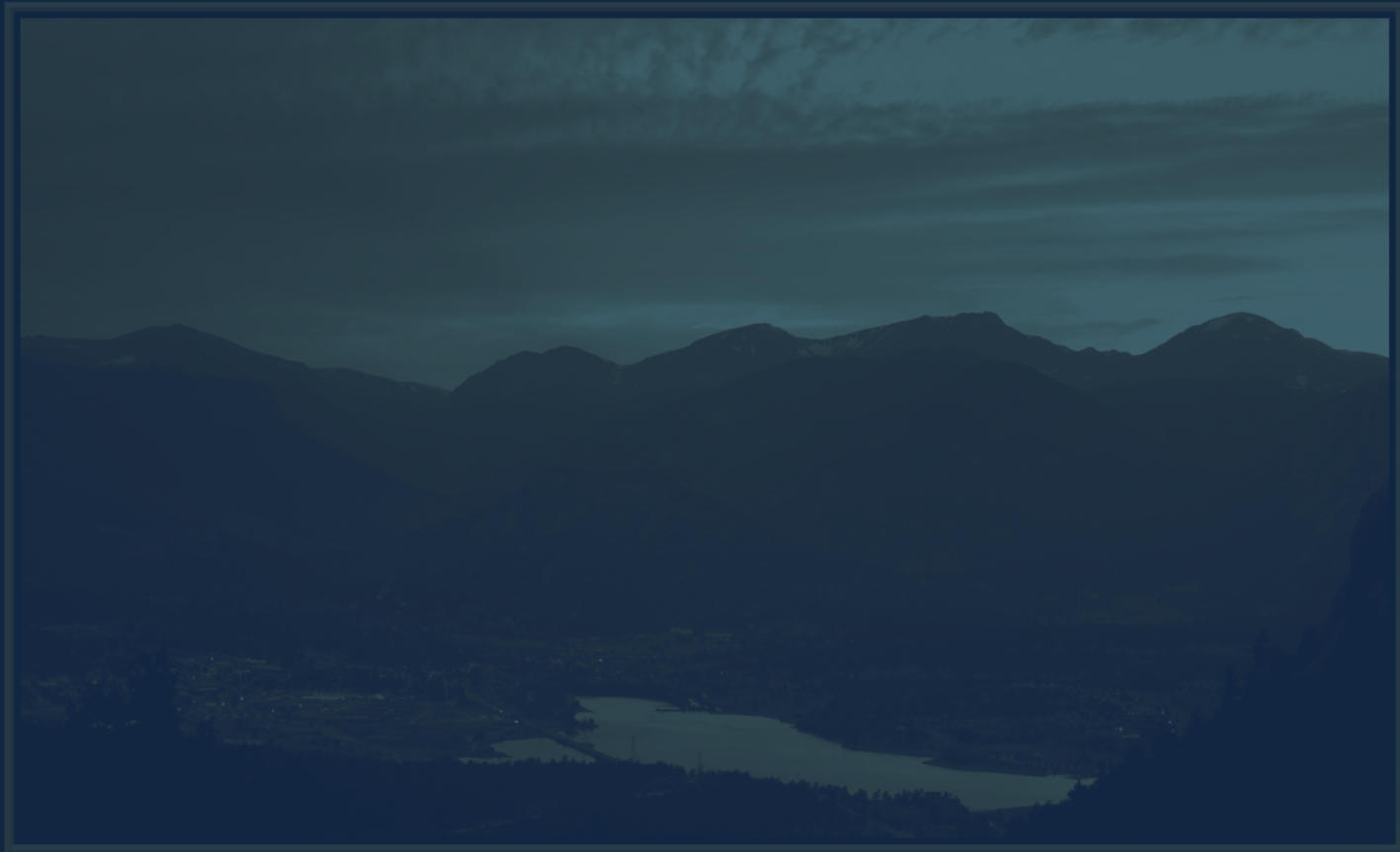
- We decided how to spend money
- We built teams
- We started coding
- We built a culture

- I had a lot of help from a seasoned executive

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Time to Change – AGAIN!



MANAGEMENT – ASPIRE THE SECOND TRY

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Fifth Lesson

Facts are not

reality,

Perception

is reality

"You will become as small as your control of the desire;
as great as your dominant aspiration."

- James Allen

Management – Take Two!

Relativity and Management

- Frames of Reference
 - Are you a threat?
 - Are you helpful?
 - Are you a poor communicator?
- If you can't learn empathy, at least learn how to write stories
 - You did the BA role, correct?
 - Estimate and Prioritize management stories

- James Allen

Networking

- Meet everyone
- Get along with everyone
 - People you don't like
 - People who don't like you
 - People you don't agree with philosophically
 - People with personalities that rub you wrong
 - People who are insanely demanding
 - People you can walk all over (but choose not to)

- James Allen

Building Culture

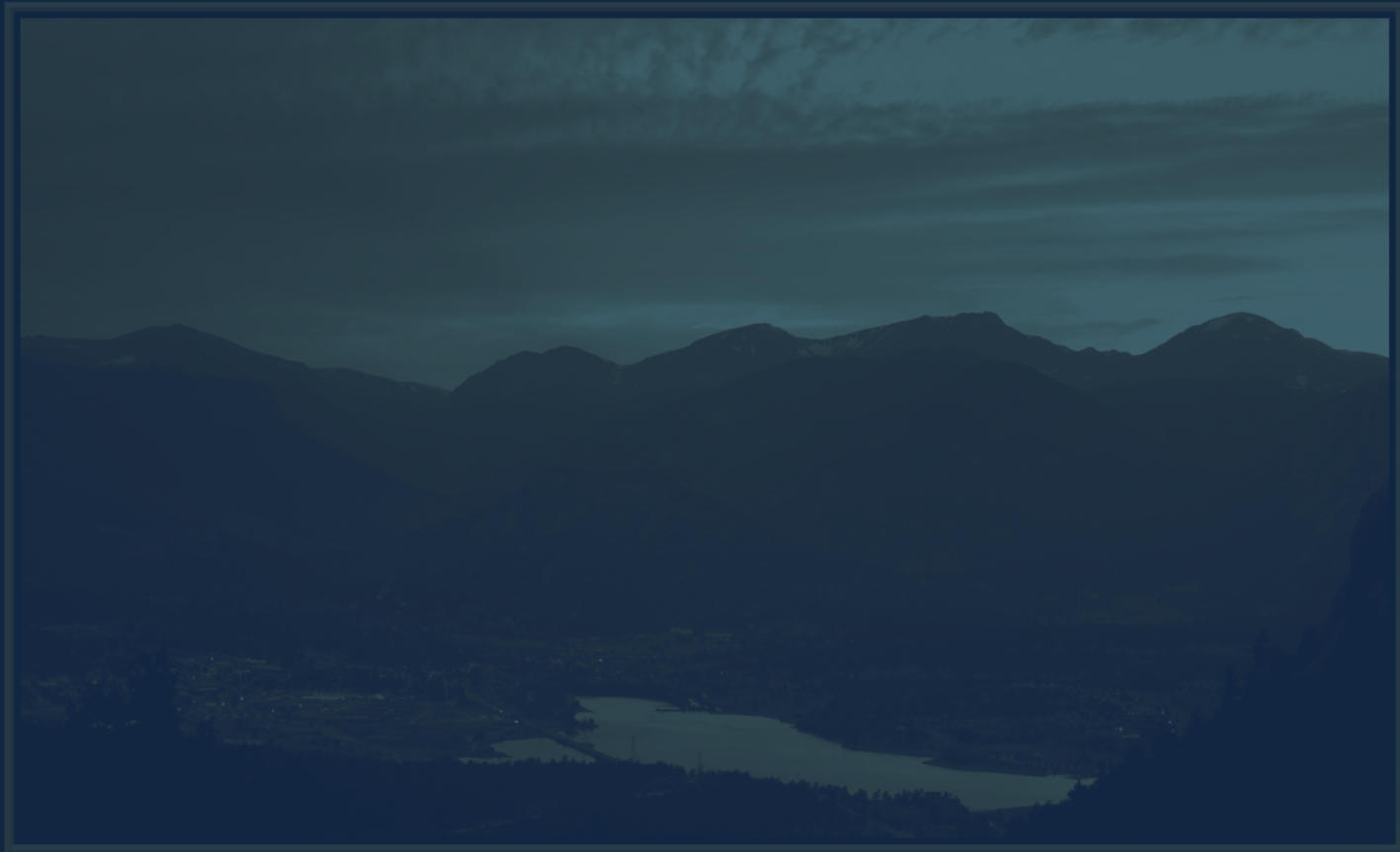
- You will have to fight for this!
- Culture builds upon itself, you are the architect
- Seed it in the right direction
- Monitor, it will degrade over time

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Management – Take Two!



BUILDING A TECH-CENTRIC MANAGEMENT CULTURE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Hire Top Talent

- You will probably have to fight for this right
- Most companies have limited ways to access engineers
- You may want to break them, but don't, change or work the system instead
- Create the environment that attracts top talent first

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Retain Top Talent

- Once you have great people, keep them
- This requires the right culture, define it!
 - Challenging work
 - Meaningful work
 - Distributed decision making
 - Clearing obstacles
 - Listening to the engineers over managers

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Do the Dirty Work

- Learn how to fire people nicely
- Deliver constructive feedback
- Confront slackers and egregious, but talented, rule breakers
- Reign in rock stars
- Plan parties and recognition
- Go to everyone's events on your free time

- James Allen

Utilize Politics

- Protect the core ideals of your culture
- Sell benefits to executives
- Explain your culture to 100s of people
- Make sure executives who have benefited from your work understand the need to protect the unique style of your teams
- Keep your promises

"You will succeed only as your controlling desire;
as great as your dominant aspiration."

- James Allen

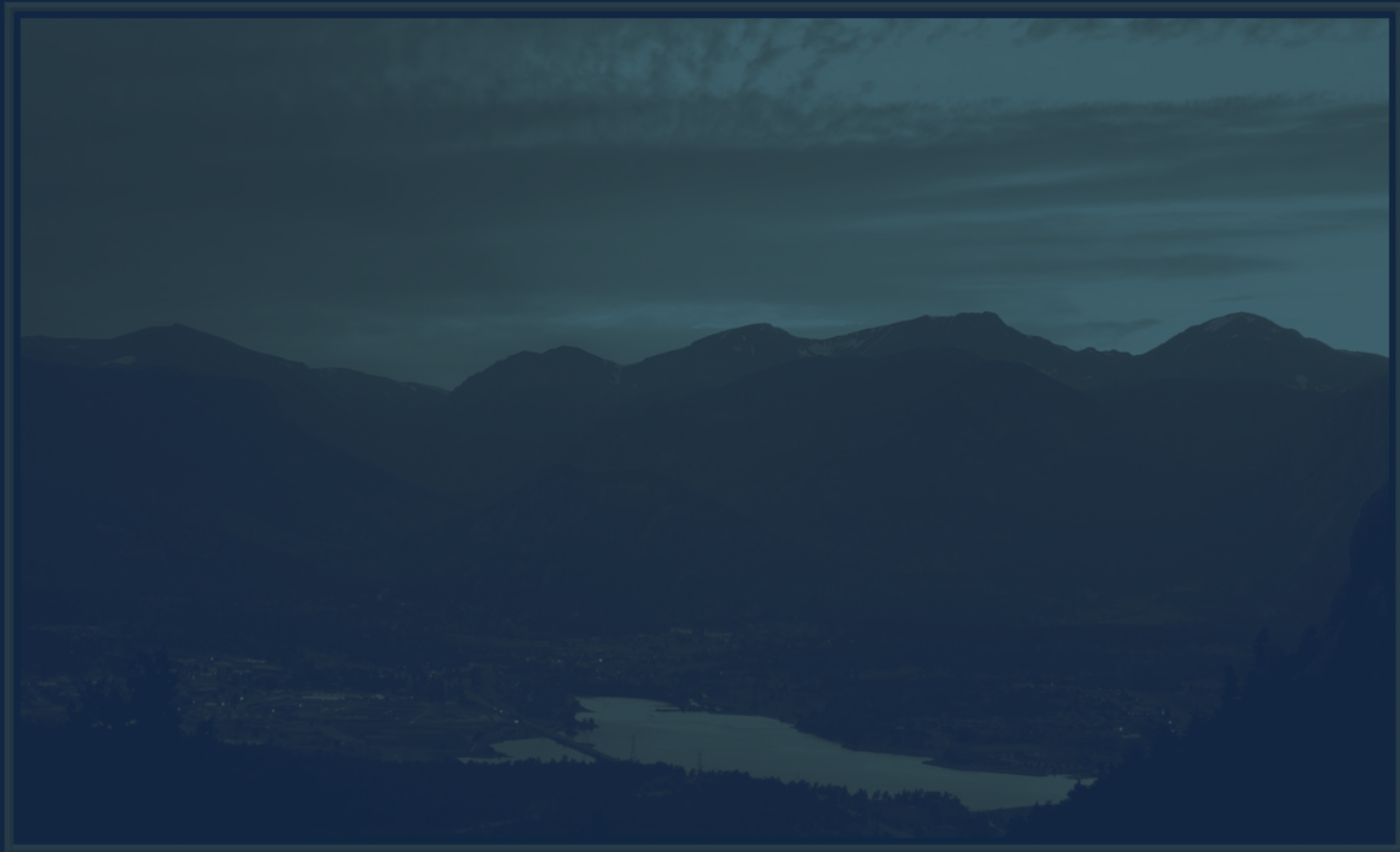
Build a Culture Where Engineers Manage

- Bring engineers along slowly to management
- Be ok when engineers decide it's not what they want to do
- Make sure they have room to code during their week
- Mentor, ensure they learn about management concepts and practices

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen



BEING A TECH MANAGER

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What happens when you have organizational power?

- You are officially "scary"
- People want to know about your background
- Salespeople want to talk to you
- Other departments want you to speak to them
- But still, you are no longer one of the team

ASPIRE

You will become as small a you as your aspiration is as great as your dominant aspiration."

- James Allen

Tech Manager

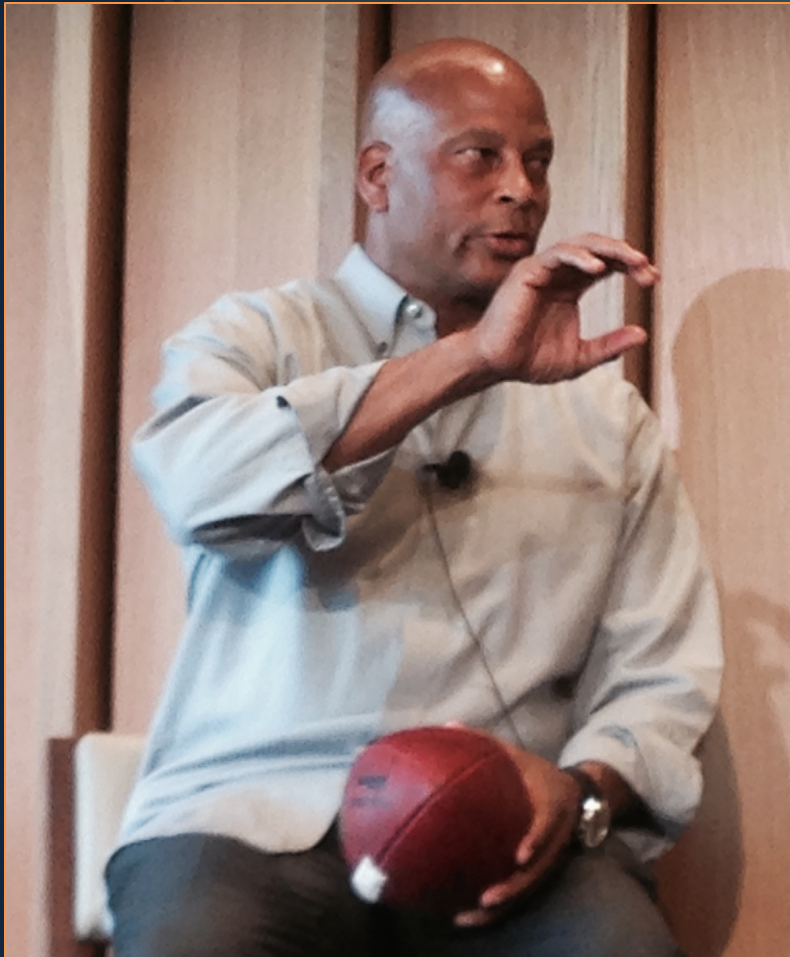
What type of leader will you be?

- Servant leader
- Level 5 leader
- Iconoclastic dictator (Jobs, Gates, Bezos)
- Tactical General (Patton)
- A**hole leader (No A**hole Rule, Robert Sutton)
- You should decide what type you want to be, otherwise you're likely the A**hole

ASPIRE

You will be only as small as your controlling desire, as great as your dominant aspiration.

Ronnie Lott on Leadership



Servant leader:

"The greatest leaders
serve others."

~Cassandra

Summit, 9/23/15

small as your controlling desire;
dominant aspiration."

- James Allen

Tech Manager

Management Trends

- Bi-modal / Lean IT
- Holacracy
- Blitzscaling
- In-sourcing engineering
- Datacenter elimination

ASPIRE

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as great as your dominant aspiration."

- James Allen

Tech Manager

Technology Trends

Maturing:

- Big Data
- Cloud
- Infrastructure Automation
- DevOps

Upcoming:

- Software Defined Networking
- Containers
- Mobile
- Location of everything
- Graph databases

"You will become as small as your goals; as great as your dominant aspiration."

Ways into Management

- Refurb your resume and LinkedIn
- Easiest:
 - Take over the role at your current employer
 - Let your manager's manager know you are interested in leadership roles
 - Let your network know you're looking to change
- Hardest: *"You will become as small as your controlling desire; as great as your dominant aspiration."*
 - Apply to management roles online

- James Allen

Tech Manager

Do You Need an MBA?

- Yes...
- Eventually
- Management is a vocation, just like coding
- You need to study as hard as you studied to become a rock star coder

"You will become successful if you have a burning desire; as great as your dominant aspiration."

- James Allen

Tech Manager

Don't Hurry

- Spend enough time in engineering to become an expert, ~10 years
- Work all the roles, engineer, tech lead, architect, business analyst, project manager, QA
- Prepare, start reading Harvard Business Review

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Tech Manager

Don't Manage like a Manager

- Manage like an Engineer
- The Engineer's golden rule of management decision making:

**"What outcome
would I have wanted,
when I was an engineer?"**

"You will become as small as your controlling desire;
as great as your dominant aspiration."

James Allen

Tech Manager



The end of the story, for now ...

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

In 2013

- Managed three teams, Architecture, Engineering and UI Engineering
- I had seven managers and over 50 engineers on our teams
- The shift from managing doers to managing managers is a large step

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

Current State

2014 -2015

- Teams and scope continued to grow
- Took over Enterprise Architecture
- Team membership has grown to 250+, mostly local talent
- Team sizes remain small, 6-8 mostly, 10-12 is maximum size
- As a manager, problems are now large scale and structural in nature

- James Allen

Current State

In 2015

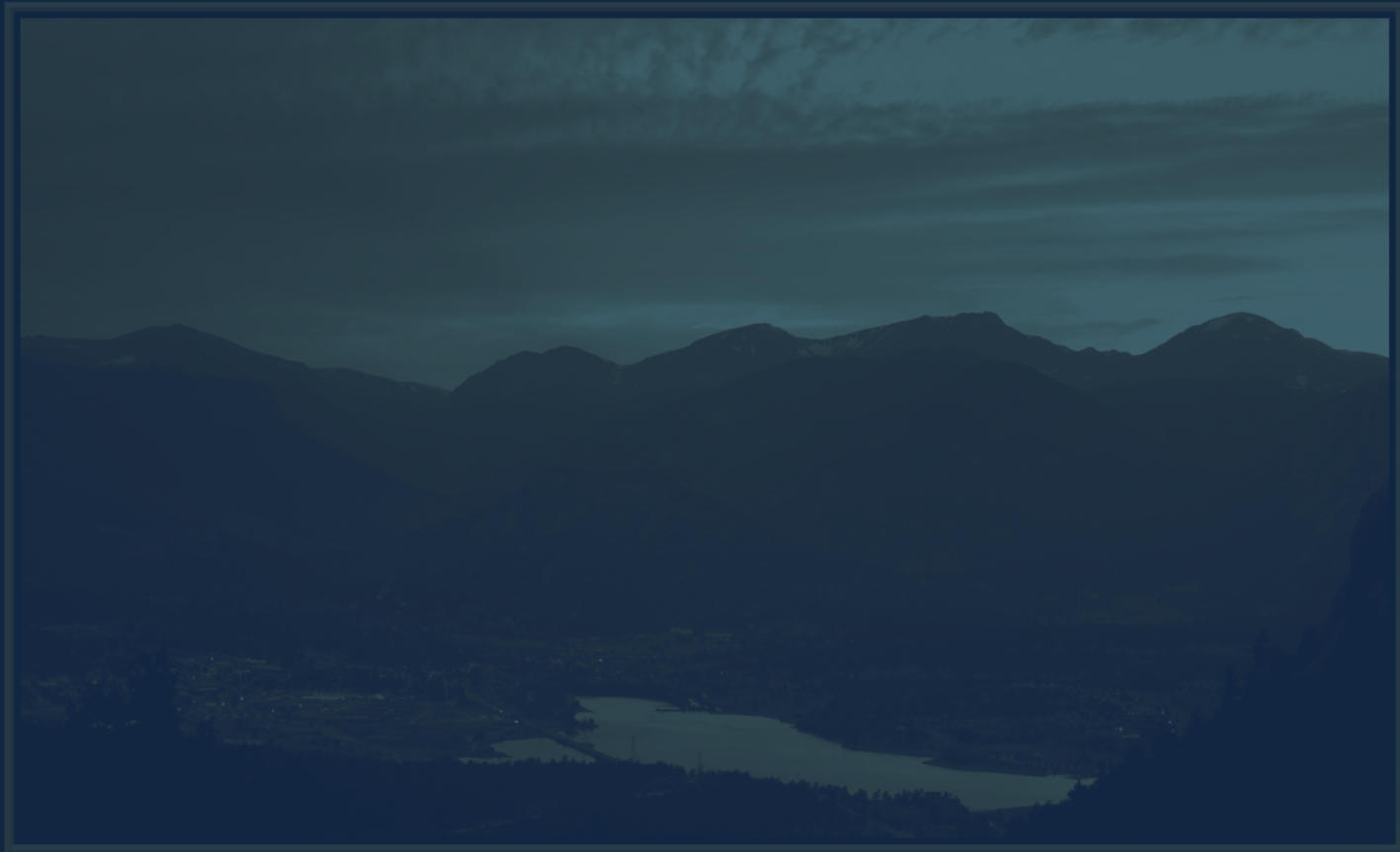
- I lost Enterprise Architecture
- I rediscovered the Digital world
- Does being technical still matter when you no longer manage engineers?

- Absolutely! **ASPIRE**

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as great as your dominant aspiration."

- James Allen

Current State

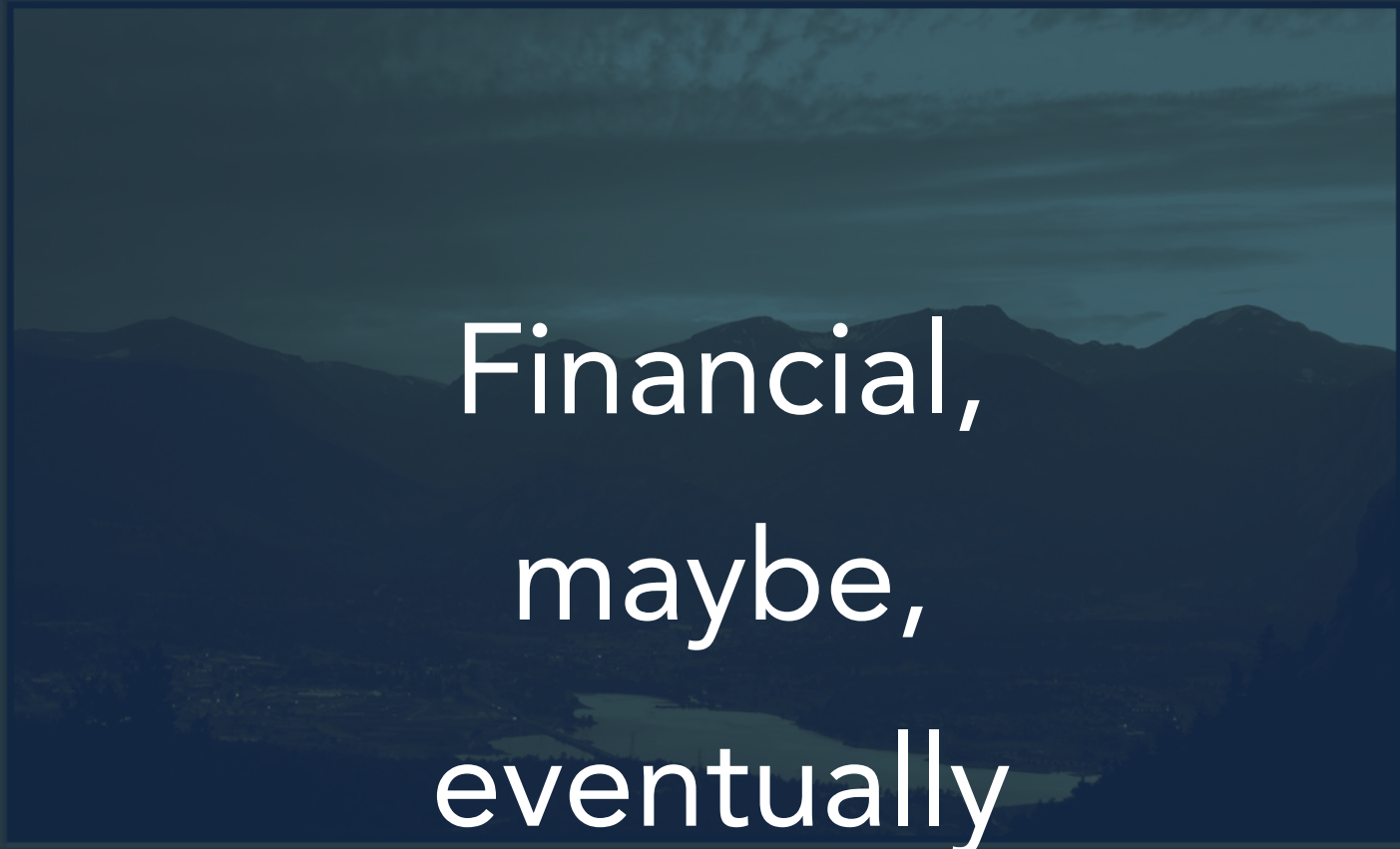


WHAT'S IN THIS FOR YOU?

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen



Financial,
maybe,
eventually

ASPIRE

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- James Allen

What's in it for me?



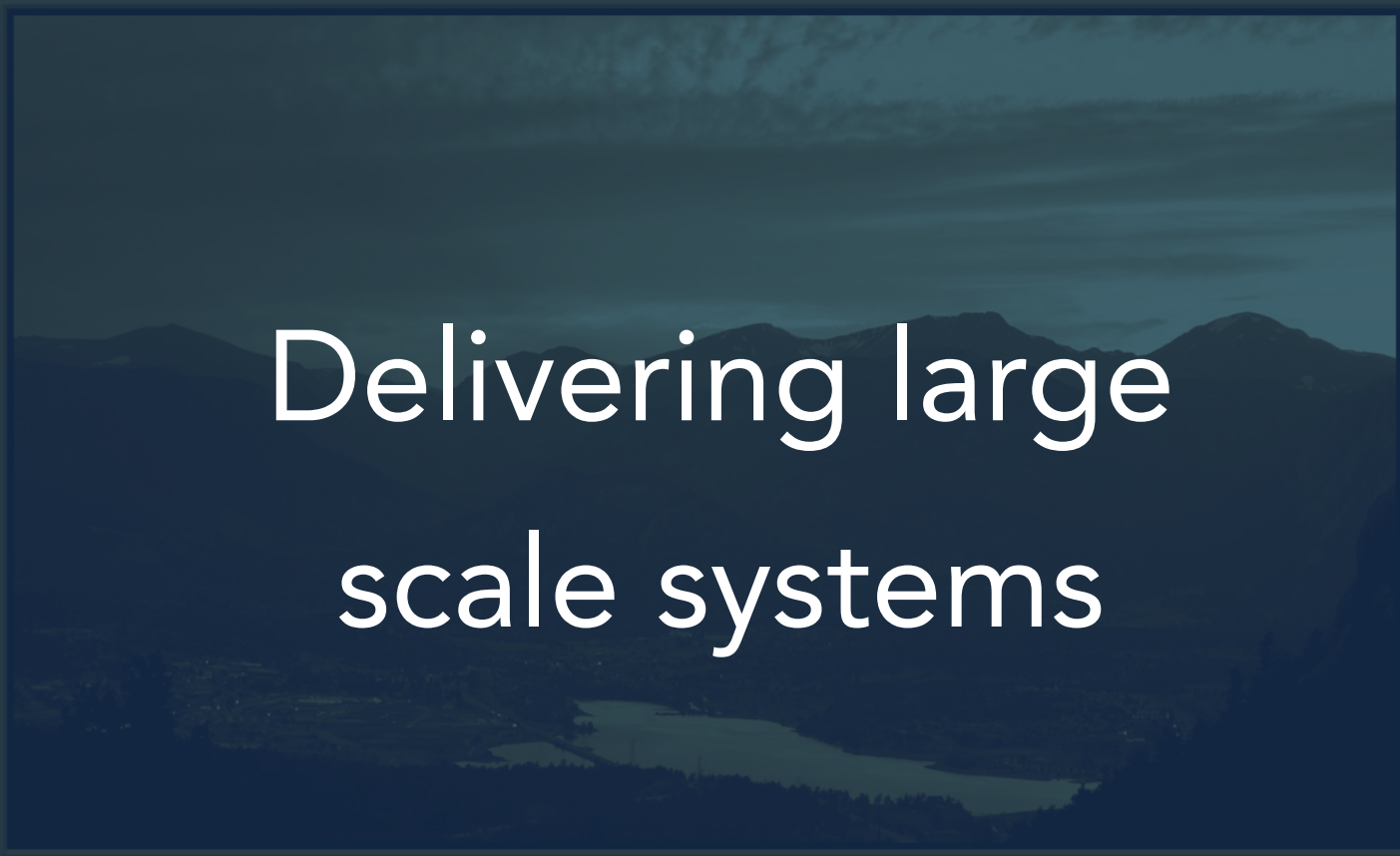
Accomplishing
many things at once

ASPIRE

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- James Allen

What's in it for me?



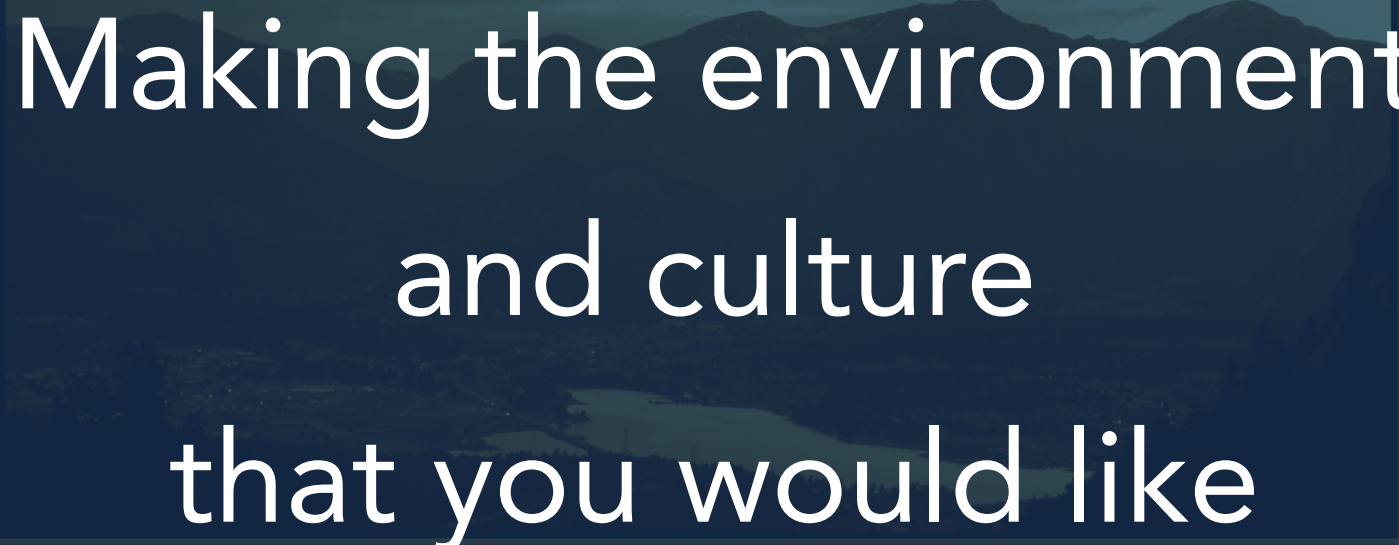
Delivering large scale systems

ASPIRE

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What's in it for me?

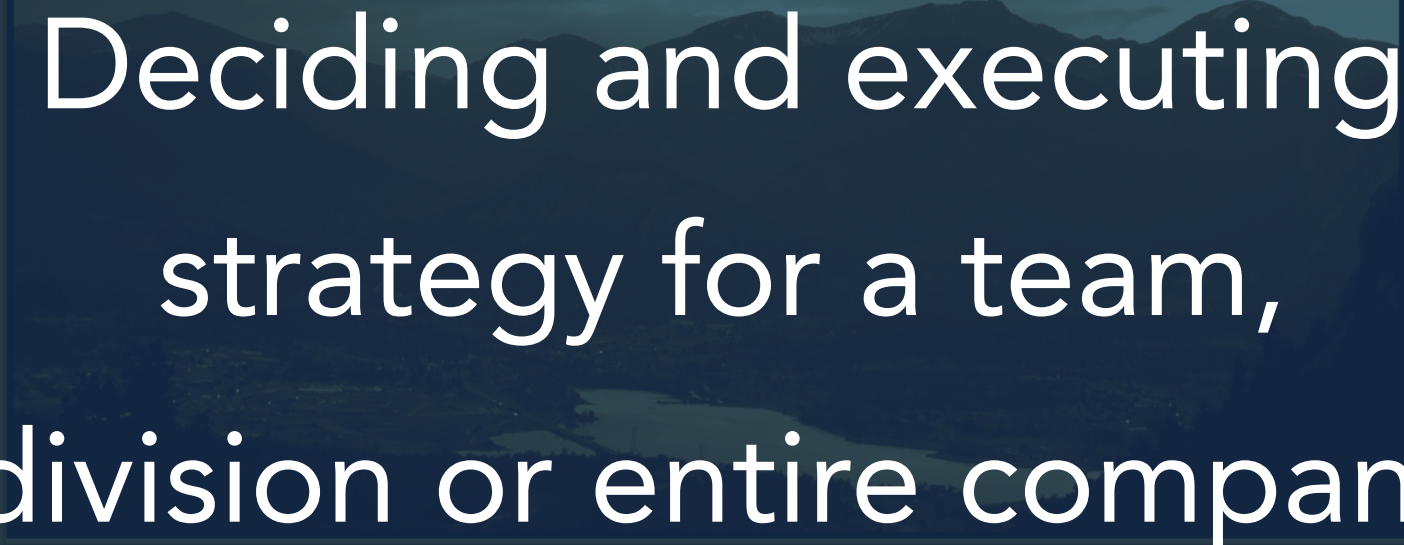


Making the environment
and culture
that you would like
to work within

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?



Deciding and executing
strategy for a team,
division or entire company

ASPIRE

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- James Allen

What's in it for me?



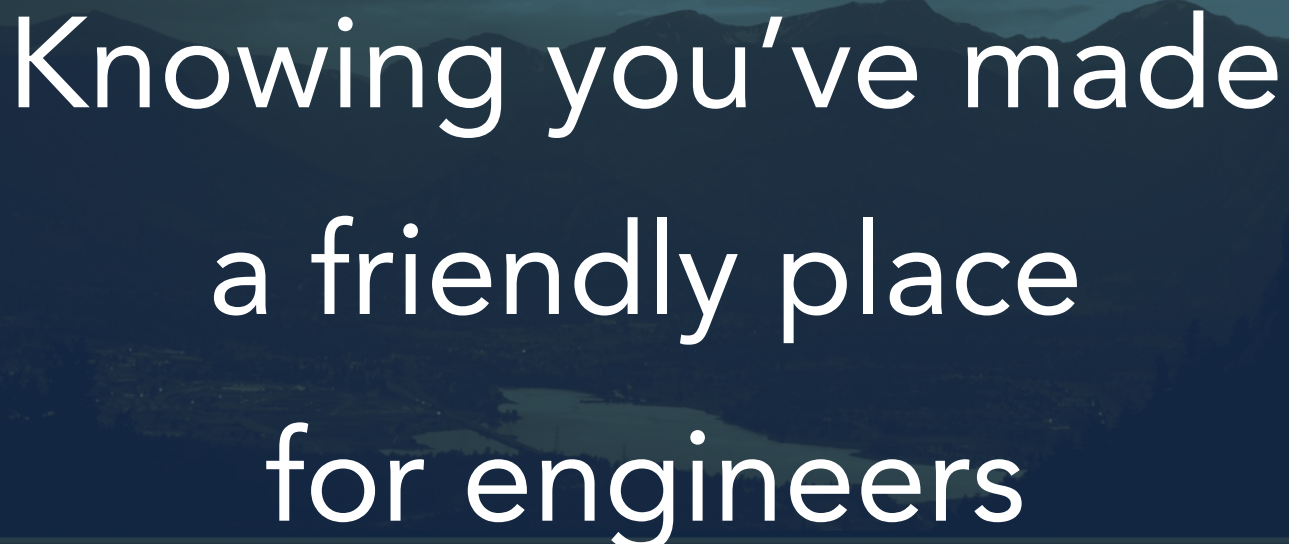
Writing articles and giving talks

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?



Knowing you've made
a friendly place
for engineers

ASPIRE
to live and work

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?

Lessons

1. Don't throw out your Engineer-ness
2. People are harder than machines
3. It's ok, go code!
4. Managers decide how money is spent
5. Facts are not reality, perception is reality

ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?

Final Appeal

Rock star engineers

need

rock star managers

to achieve their best

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?

Final Appeal

Where will they come from

unless

rock star engineers

become

rock star managers

"You will become as small as your controlling desire;
as great as your dominant aspiration."

- James Allen

What's in it for me?



ASPIRE

"You will become as small as your controlling desire;
as great as your dominant aspiration."

Dilbert – Scott Adams

- James Allen