The Well-Rounded Architect

@patkua
The first bank you’ll love
Banking, this beautiful
Make your goals a reality with Spaces.
» N26 is the modern bank with 150+ deploys/week «

enabled by a platform built with CD and Infra-as-Code
CTO of N26
CTO of N26

We’re hiring in NYC!

https://n26.com/jobs/
Our Journey
Our Journey

What is an Architect?

Failure Modes

Elements of a good Architect

The Well-Rounded Architect
The Architect is a role.
The Architect may not exist.
The Architect could be played by multiple developers
The Architect

not all developers can play the role (yet)
What is an Architect?
What is an Architecture?

“All architecture is design, but not all design is architecture.”

——— Grady Booch
What is an Architecture?

“Architecture represents the significant design decisions that shape a system, where significant is measured by cost of change.”

——— Grady Booch
What is the relationship between an Architect and Architecture?
Architect ↔ Architecture
architect decides on architecture
architect is responsible for architecture
architect is responsible for architecture
architect owns architecture
Architect is responsible for architecture

architect nurtures architecture
What is an Architecture?

“All architecture is design, but not all design is architecture.”

——— Grady Booch
Our Journey

What is an Architect?

Elements of a good Architect
An effective Architect develops skills as a Leader
What happens without Technical Leadership?
What happens without Technical Leadership?

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5 persistence frameworks

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3 automated test frameworks

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5 parallel branches

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A hand-rolled source control system

All on the same project...
@thejayfields: I had ten guys on my last project, all of them had opinions and all of them were expressed in the code base

#speakerconf

Source: http://twitter.com/julianboot/status/232830267822309376
An effective Architect acts as a good Leader and shepherds everyone in the same direction.
Entrepreneur
Strategic Technologist
Leader
Developer
Communicator
Entrepreneur
Systems Focused
An effective Architect is also a good Developer
Developer

- decision loop feedback
- first hand observation
- experiencing the side-effects
- discovering system constraints
Developer
Entrepreneur
Strategic Technologist
Communicator
Leader
Developer
Systems Focused
An effective Architect is Systems Focused
“Build systems, not software.”
Systems Focused
Software lives in a more complex ecosystem.
Software lives in a more complex ecosystem.

Systems Focused

- Deployments
- Monitoring
- Fixes
- Constant Change
An effective Architect thinks like an Entrepreneur
Entrepreneur

Cost  Benefit  Experimenting
An effective Architect looks forward like a **Strategic Technologist**
Strategic Technologist

ADOPT

HOLD

TRIAL

ASSESS
Entrepreneur
Strategic Technologist
Communicator
Leader
Developer
Systems Focused
An effective Architect must be a strong Communicator
Communicator

Development Team
Communicator

blah blah REFACTORING blah blah
blah blah COUPLING blah blah
blah blah COHESION blah blah
blah blah DOCKER blah blah
blah blah CLOJURE blah CD blah blah
blah blah DEVOPS blah blah

Development Team
Communicator

blah blah REFACTORING blah blah
blah blah COUPLING blah blah
blah blah COHESION blah blah
blah blah DOCKER blah blah
blah blah CLOJURE blah CD blah blah
blah blah DEVOPS blah blah
Communicator

blah blah REACH blah blah
blah blah DIFFERENTIATOR blah blah

Product
Finance
Marketing
Management
Communicator

blah blah COST blah blah
blah blah BENEFIT blah blah
blah blah INVESTMENT blah blah
Communicator

blah blah RISK blah blah
blah blah RETURN blah blah
blah blah OPPORTUNITY blah blah
Communicator

Outwards

Inwards

emails

diagrams

presentations

infodecks
Entrepreneur
Strategic Technologist
Communicator
Leader
Developer
Entrepreneur
System Focused
Strategic
Technologist
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The Well-Rounded Architect
Dodgy Salesperson

“Big ideas” person

Ideas never fully realised

Resume driven development
Ivory Tower Architect

- Unimplementable designs
- Better in theory than practice
- Fear of being redundant
Entrepreneur  
Strategic  
Technologist  
Systems Focused  
Communicator  
Leader  
Developer  
Entrepreneur  
Systems Focused
**Tinkerer**

Ignored by the business

Ignored by developers

Drops “code bombs”
Entrepreneur
Strategic Technologist
Communicator
Leader
Developer
Entrepreneur
Systems Focused
ADD Architect

Establishes “technical projects”
Destroys trust with the business
Big bang failure mode
Our Journey

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The Well-Rounded Architect
There is no “right” shape for a well-rounded architect
There is no “right” shape for a well-rounded architect.
But, there is a minimum to be an effective one.
Every architect will have different strengths.
Every architect will have different strengths.
Use the map to build your own journey.
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What questions do you have?