

An Honest Look at Startup Life

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Outline

A little bit about myself.

How to transition from a PhD to a startup.

What to expect at a startup.

How to navigate failure.

What to watch out for in joining a startup.

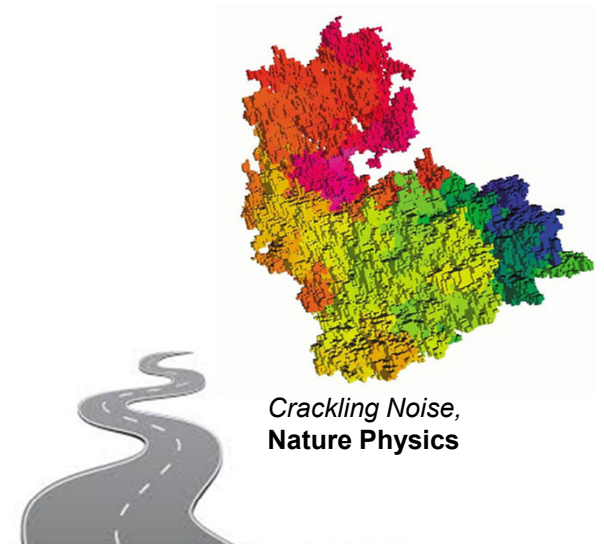
Trade-offs.

A Little Bit About Myself

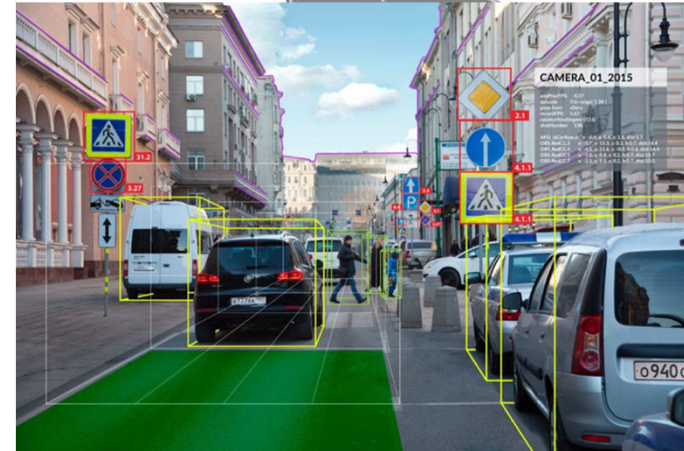
Worked with Karin Dahmen on avalanches, graduated 2019.

Worked at a small startup on self-driving cars.

Currently work at Standard Cognition as a Deep Learning Researcher.



Crackling Noise,
Nature Physics



Object Detector for Self-Driving Vehicles

What I Do At [Sc]

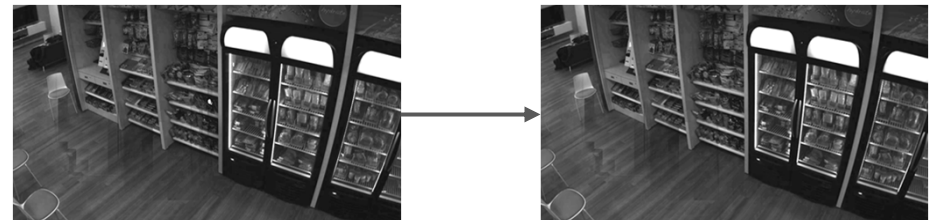
A lot of plumbing.

A mixture of research and research-adjacent stuff in Deep Learning and Computer Vision.

Stay up to date with the ML field, but perhaps watch it from a distance.



Tracking



Change Detection

How Did I End Up Here?

Connections - People you might know or have a simple way to talk to.

Cold contacting - **It never hurts to ask.**

Enthusiasm beyond “I want to find a job.”
This can be hard.

Ended up at Scotty Labs doing self-driving stuff, at exactly the worst time.



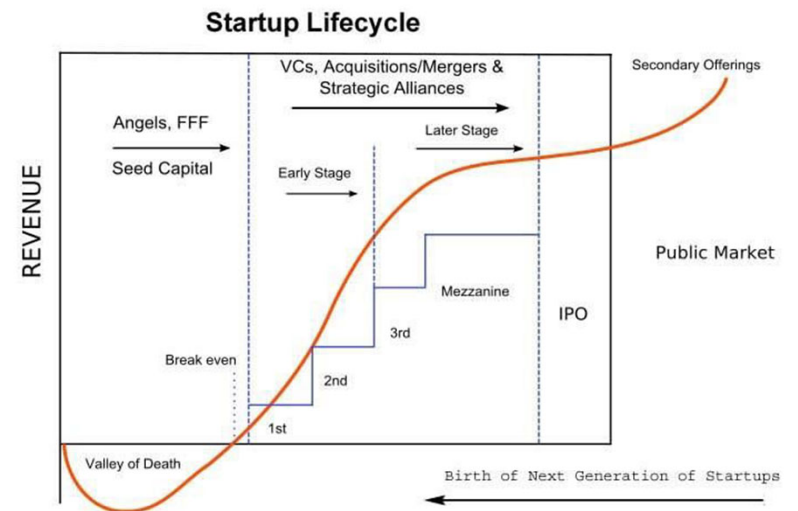
Typical Lifecycle of Startup

Founders raise seed money

Some sort of MVP (minimum viable product)

Almost all startups are unprofitable, rely on venture capital money.

Almost always when raising a new round of funding, equity is diluted!



Day-to-day Life

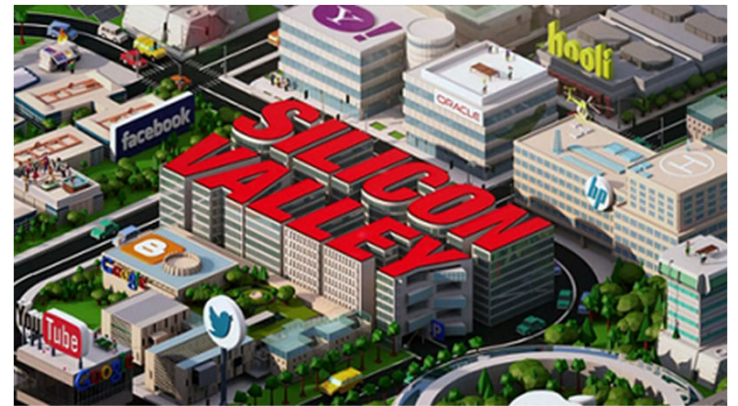
If you're an employee, work-life balance can be achieved.

Work is self-directed (sometimes, depends on management)

Similar to research, except faster.

Problems are easier, focus almost always on core product.

Your founders are working like crazy (hopefully).



What Happens When a Startup Doesn't Succeed?

Failure is OK.

Startups fail often -- the figure is 90% of startups fail (i.e. run out of money).

Many startups don't succeed -- i.e. make money for their shareholders.

Employees likely to get \$0. Many lose their jobs.

The timeline to a successful "exit" is long.

Name	Common Stock	Stock Options	Series A Preferred	Total Shares	Percent Outstanding	Percent Fully Diluted
Founder One	1,500,000		250,000	1,750,000	47.0%	43.7%
Founder Two	1,100,000			1,100,000	29.6%	27.5%
Employee One		80,000		80,000	2.2%	2.0%
Employee Two		40,000		40,000	1.1%	1.0%
Investor One			500,000	500,000	13.4%	12.5%
Investor Two			250,000	250,000	6.7%	6.3%
Remaining Option Pool		280,000		280,000		7.0%
Total	2,600,000	400,000	1,000,000	4,000,000	100%	100%
Percent Ownership	65%	10%	25%	100%		

The pool left for employees is only 7% of the total.

Tradition Job Hunt

Is all about connections, unsurprisingly.

Startups, big companies, everyone -- same interview formats.

Interviewing is *incredibly noisy*.

Don't be hurt by rejection! Keep at it.

Be mindful of your mental health during this process.

Negotiating is a tricky business.



This is - no joke - how some interviews go at companies.



Where Should You Go?

Reasons to join a startup:

- 1) You get to work on something cool (hopefully)
- 2) You build the product / code base from the ground up.
- 3) The environment is dynamic

Reasons not to join a startup:

- 1) You want to get rich.
- 2) You like difficult but structured problems.
- 3) You want stability.



Types of Startups

Scotty was a seed round startup, with a large (\$6M) seed round.

1. Extremely unstable
2. No one knows what they're doing
3. You have complete creative freedom
4. You're spread thinner than a crepe



[Sc] is a series B startup, with a large amount (\$90M?) in funding.

1. Much more stable
2. People are still spread thin
3. You less free to do what you want
4. Goals are much clearer



If You Do Join a Startup

Talk to the founders. They make all except the biggest decisions.

Understand your equity offer. This is super confusing.

Know who is funding the company. Investors often determine goals and make the big decisions (i.e. whether to sell or not).

Believe in the idea enough to work on it.



Costs of Joining a Startup

Joining bigger companies (Apple, Google, IBM, Intel, etc.) is a good bet for better connections, more money (in some cases), more stability, brand.

Real research can't really happen at startups. Too much pressure to make a product. There are exceptions (Rigetti Computing, etc.).

Visa issues with startups are extremely dangerous. H1B visas are dependent on employment status. Startups have every incentive to not inform employees of impending doom.

Helpful Websites

Hub of Silicon Valley startup \$\$\$ nonsense -- <https://www.crunchbase.com/>

Technical news and gossip -- <https://news.ycombinator.com/news>

Ways to kill brain cells and get better at coding interviews -- <https://leetcode.com/>

Thank You!