



SUCCESSING WITHOUT A PLAN

Saying yes to opportunities



UWTRONS

Congratulations!

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- ▶ You magically have all the answers now!

— WHAT NEXT? —

- ▶ Get a job?
- ▶ Grad school?
- ▶ Travel?
- ▶ Do something completely unrelated?

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It's okay to not have a plan

— ABOUT ME —

- ▶ Graduated with Tron16
- ▶ Working at Applied Brain Research
- ▶ Doing a part-time MASc. in ECE

— WHAT I DO NOW —

Applied Brain Research

Applied Brain Research is a startup out of the Computational Neuroscience Research Group at UW.

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Applied Brain Research

Applied Brain Research is a startup out of the Computational Neuroscience Research Group at UW.

- ▶ Collection of PhDs with backgrounds in neural networks, robotics, software, etc.
- ▶ Developing new applications in adaptive robotics, machine vision, language processing, etc.
- ▶ Maintain Nengo, a *neural compiler*

— WHAT I DO NOW —

Neuromorphics?

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What is *neuromorphic*?

- ▶ Alternative to classic Von Neumann architecture
 - ↳ Inspired by the brain
- ▶ Several neuromorphic chips exist, but aren't accessible
 - ↳ SpiNNaker, Braindrop, True North, Loihi

— WHAT I DO NOW —

Neuromorphics?

I have the fancy job title of **Neuromorphic Engineer**.

What do I do?

- ▶ Work with FPGAs to design pseudo-neuromorphic chips
 - ↳ Low cost, available commercially
- ▶ Connect FPGA implementation to Nengo frontend
 - ↳ Easy to use

— WHAT I DO NOW —

MASc.

I'm also working with [Dr. Nachiket Kapre](#) in the Waterloo Configurable Architectures Group.

- ▶ I'm lucky that research at my job is my thesis work (mostly)
- ▶ Hoping to finish this summer

— **WHAT I DO NOW** —

How did this happen?

How did I get here without a plan?

— IN THE BEGINNING

Engineering

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More mechanically inclined, I've never coded in my life...
...but **mechatronics** sounds super interesting, so why not?

— UNDERGRAD —

Mechatronics

Essentially no elective for the first 3 years.

- ▶ Awesome, no decisions!

— UNDERGRAD —

Co-op placements

I was all over the place, no idea what I wanted

- ▶ Heavy industry
- ▶ Medical
- ▶ Automotive
- ▶ Microelectronics

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This showed me what I didn't want to do

— UNDERGRAD —

Electives

Alright, time to try some new topics

- ▶ Machine Learning
- ▶ Neural Networks
- ▶ Philosophy

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- ▶ Neural Networks
- ▶ Philosophy

I actually **attended class** for these! This is probably the right direction.

— AFTER UNDERGRAD —

Actually more like March

- ▶ Planned some trips
- ▶ Had some interviews
- ▶ Considered non-engineering work

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Actually more like March

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- ▶ Had some interviews
- ▶ Considered non-engineering work
- ▶ Still no real long-term plan

— AFTER UNDERGRAD —

Starting at ABR

One of my professors, [Dr. Chris Eliasmith](#), invited me to interview at his company...

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Why not? I like the class – say [yes](#) to opportunities!

- ▶ Interesting research area
- ▶ Not a position that will get boring
- ▶ I like the people

— WORKING AT ABR —

I have no idea what I'm doing

I accepted the job and began working with FPGAs, despite directly saying **hardware is my weakest area!**

I quickly figured out:

- ▶ This is hard

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- ▶ Epiphany – that's what that class was about!

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- ▶ Epiphany – that's what that class was about!
- ▶ I have no idea what I'm doing



1 Year Later

— WORKING AT ABR —

I have ~~no~~ *some* idea what I'm doing

I managed to make some progress and have some basic hardware functional!

— GRAD SCHOOL —

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Basically,

- ▶ Dr. Kapre was a new professor at UW
- ▶ He gives a seminar uncannily similar to my work
- ▶ Say yes to opportunities!
 - ↳ Oops I'm now doing a master's degree now?

— HERE WE ARE —

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— HERE WE ARE —

- ▶ I have a job I didn't know existed
- ▶ Working in a subject I barely understood in school
- ▶ Amongst people far smarter than me
- ▶ And, somehow I'm back in school

REMEMBER

Advice from my father

Ask yourself three things:

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Advice from my father

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— REMEMBER —

Advice from my father

Ask yourself three things:

1. Do you like the people you work with?
2. Are you engaged in your work?

REMEMBER

Advice from my father

Ask yourself three things:

1. Do you like the people you work with?
2. Are you engaged in your work?
3. Do you have enough money to be comfortable?

REMEMBER

Advice from me

- ▶ You don't need to have a concrete plan

— REMEMBER —

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- ▶ Your dream job might not exist yet!

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Advice from me

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 - ↳ but you should have a general direction
- ▶ Start saying yes to opportunities!
 - ↳ even if you're unsure or underqualified
- ▶ Your dream job might not exist yet!

Try and take life a little less seriously!