

# Thoughts on Finding Your Way



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BOISE STATE  
UNIVERSITY



SPEECH,  
LANGUAGE &  
INTERACTIVE  
MACHINES

# ca·reer

## Origin

LATIN

ITALIAN

FRENCH

carrus → carriera → carrière → career  
wheeled vehicle mid 16th century

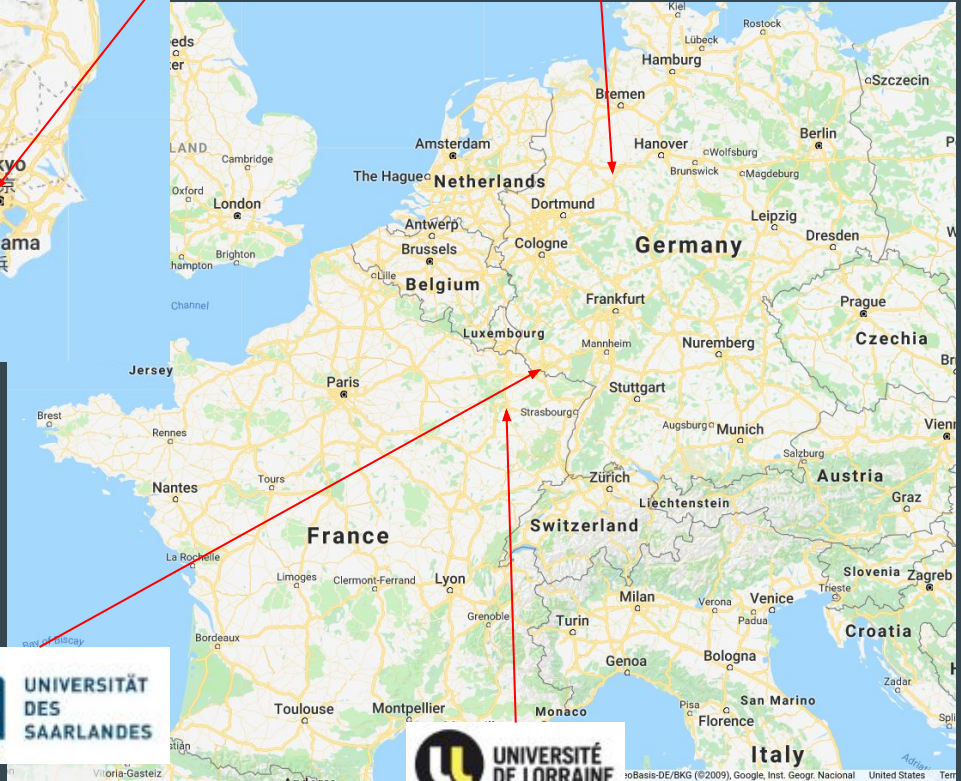
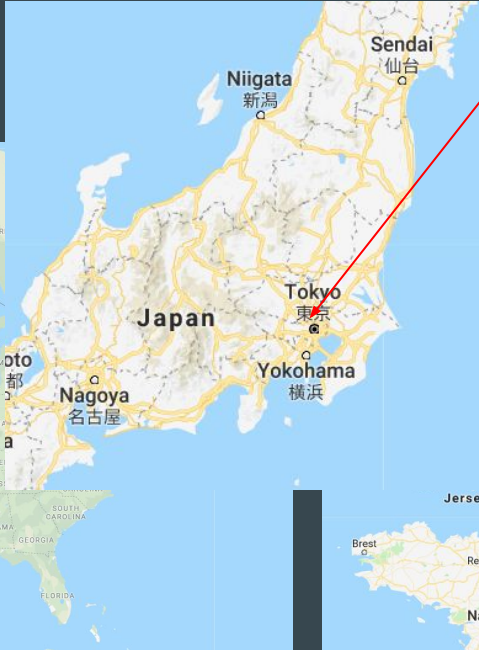
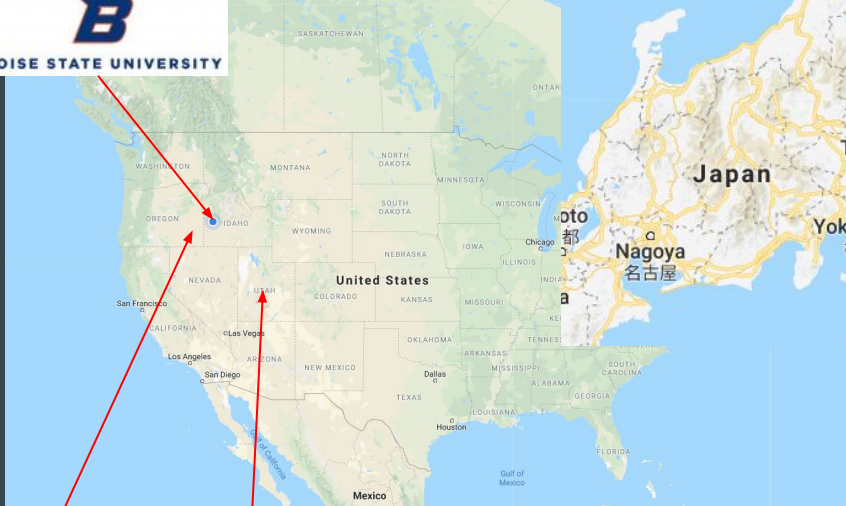
mid 16th century (denoting a road or racecourse): from French *carrière*, from Italian *carriera*, based on Latin *carrus* 'wheeled vehicle.'

Translations, word origin, and more definitions

“[I]t's worth recognizing that there is no such thing as an overnight success. You will do well to cultivate the resources in yourself that bring you happiness outside of success or failure. The truth is, most of us discover where we are headed when we arrive. At that time, we turn around and say, yes, this is obviously where I was going all along. It's a good idea to try to enjoy the scenery on the detours, because you'll probably take a few.” -Bill Watterson



# Some history (2004-2016)



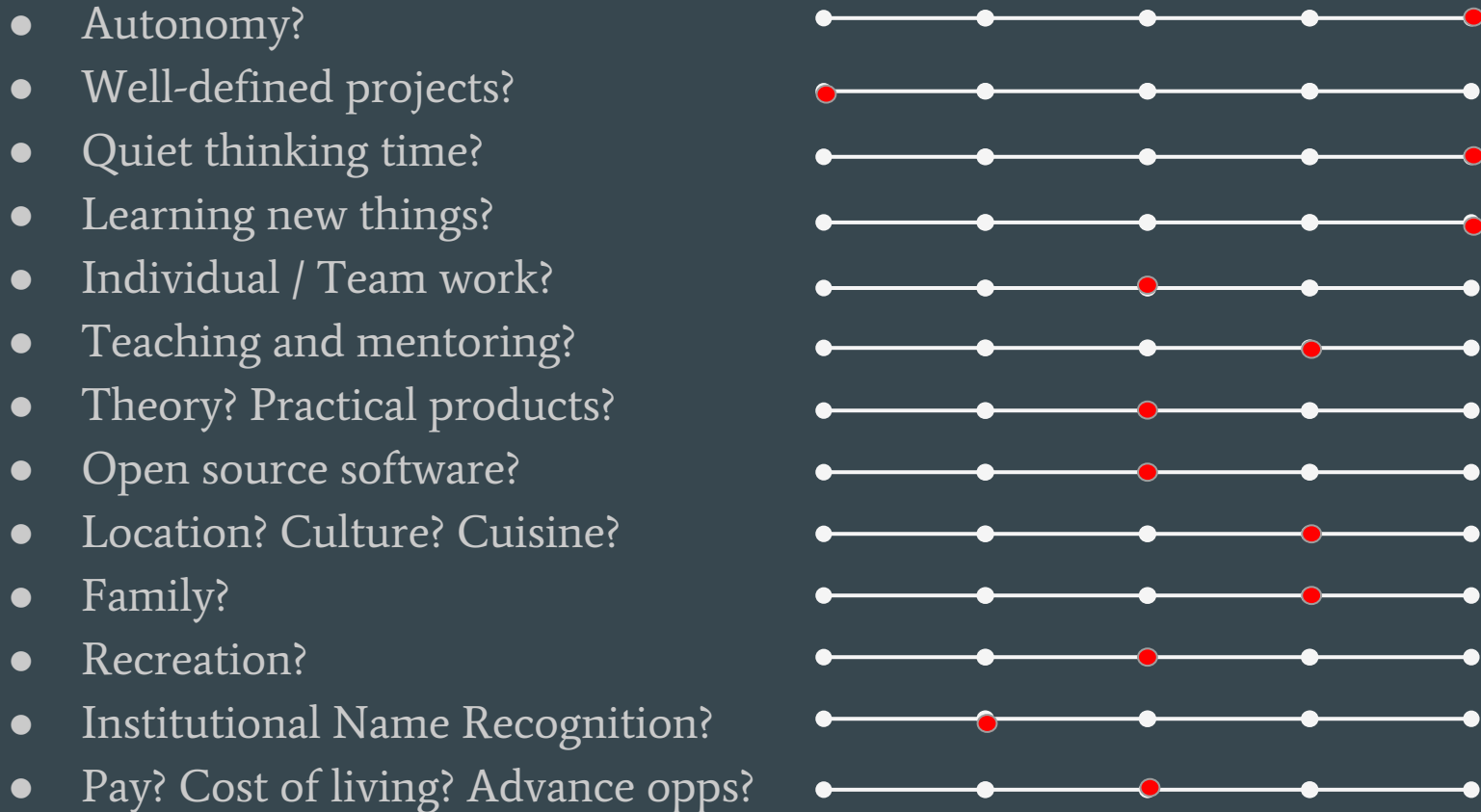
# Goal

When you wake up in the morning, you look forward to engaging in your **day-to-day** work.

# Making Decisions: What is important to you?

- Autonomy?
- Well-defined projects?
- Quiet thinking time?
- Learning new things?
- Individual / Team work?
- Teaching and mentoring?
- Theory? Practical products?
- Open source software?
- Location? Culture? Cuisine?
- Family?
- Recreation?
- Institutional Name Recognition?
- Pay? Cost of living? Advance opps?

# Making Decisions: What is important to you?



# Industry or Academia? Academia positives

- Teaching
- Mentoring
- Research
- Colleagues
- My own office (with a door that can lock and a whiteboard)
- Shower
- <http://www.pgbovine.net>
- Industry to Academia: <http://matt-welsh.blogspot.de>

# 'merican 'cademics: general information

- Salary is for 9 months
  - You can of course spread that out over the 12 months
  - You can fill in “summer salary” with grants
  - Summers are great (3+ months without teaching requirements)
- Computer science departments are hiring
  - Partly because industry keeps taking established professors in various fields
- Setting up a research group takes a lot of time
- Getting your first grant can take a lot of time (and luck?)
- Institutional Review Board (IRB)
- Tenure



# Academia: Negatives

- Grant Proposals (differs depending on your country)
- Meetings (“service”)
- “In academia, half of your time is dedicated to teaching, half to research, and half to departmental service.” -David Schlangen
- Oh, the academia vs. industry question! I decided a couple years ago that I didn't want to stay in academia. For one, I don't enjoy teaching or mentoring. Also, publishing drives me nuts - not writing papers, which I'm totally happy to do, but just the ways that publishing as a primary goal drives and impacts research in negative ways... quantity over quality, overly complex approaches that look nice on paper, solving of non-problems, etc. (I think this is worse in robotics than other fields because robots are further away from real applications.) Also, I really like and value engineering, so it's sad to me when all my systems are sloppily thrown together because engineering effort isn't core to the research problem so it can't be justified. So it's hard to imagine I could ever achieve lifelong fulfillment through the professor route. The grass is always greener, but overall I felt disillusioned enough that I was ready to take the one-way trip to the other side.

# Life post-PhD: What should I do now to prepare?

- Keep track of potential places where you might want to work and network
  - Industry: Google, Apple, Amazon, Microsoft, Nuance, HRI, Interactions, etc.
  - Academia: Edinburgh, Heriot-Watt, KTH, Gothenburg, Amsterdam, USC, Saarland, etc.
- Option 1: find openings and send your CV everywhere
- Option 2: find exactly what you want and work for it
  - I tried this for Boise State and it worked (warning: survivorship bias)
- Practice writing (more on this later)
- Publish papers, do an internship (if possible)
- Publish (readable, usable) code on GitHub
- Organize yourself (Trello, Asana, others)
- Besides ML and DL: learn enterprise web dev (Heroku, AWS, etc.)

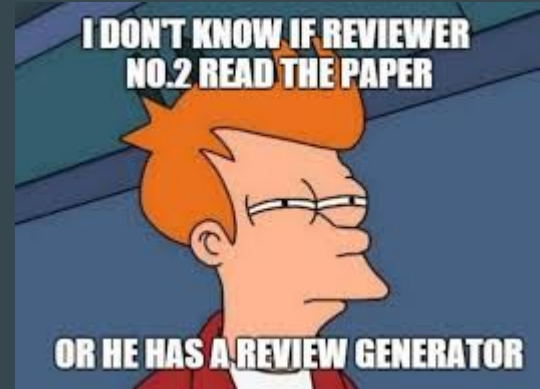


# Dealing with Failures and Setbacks

- Paper rejects
- Problems with your code, lab
- Advisor unhappy with you
- Grant reject
- Dissertation writer's block
- Health issues
- Family issues
- Imposter syndrome

Go on a walk and think through your existential crisis.

Talk to people. You'll find everyone has failures and setbacks.



# Parting Thoughts

- You're human, so find an outlet to get your mind off of the crazy stuff.
  - I run and cycle.
  - Even if you love what you do (which I do), you need to the a regular breath of fresh air
- To invent your own life's meaning is not easy, but it's still allowed, and I think you'll be happier for the trouble. -Bill Watterson
- You probably have many goals, but even if you don't quite reach your goals, the effort yields its own rewards.

Done.



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# 'merican 'cademics: My experience

- The department hired 8 new faculty members in 2016
  - Faculty from U.S., China, Russia, Iran, Argentina, Romania, Italy, India
- Focus was on AI, HCI, NLP, ML, DS, IR, RS, and other acronyms
- New interdisciplinary PhD in Computing program
- Courses I've been involved in creating:
  - Foundations of Data Science (CS 133) which targets non-CS students
  - Natural Language Processing (CS [4|5]36)
  - Introduction to Data Science (CS 533)
  - Deep Learning (CS 633)
- Setting up a research group (SLIM):
  - [http://web.mit.edu/tslvr/www/lessons\\_two\\_years.html](http://web.mit.edu/tslvr/www/lessons_two_years.html)
  - Compete for good talent with industry
  - Students can be amazing and they can be flaky