

# Personal Branding: Engineering the Story of You

Steven E. Bopp  
June 4, 2020

# What to Expect

1. Really quick, let's get to know each other!
2. Big ideas: what is a brand for an individual
3. Important lessons: 10 things
4. Research: Identify examples, tools, style, and a team
5. Essential Elements: tools to starting your brand! (with two types of SWAG)
6. Some conclusions



← You can download these  
slides on my website!

# whoami  
root

# About



My name is Steven Bopp and I am a Ph.D. student in materials science, and NDSEG fellow at the University of California, San Diego. I apply materials science to assemble natural elements into unique materials to solve a wide range of problems. My passion combines modeling, computation, fabrication, and characterization to iteratively implement new materials for applications in photonics and nonlinear optics.

Currently, I am exploring nitride-based metasurfaces and nanostructured composites for their applications in chip-scale optoelectronics. I have previously investigated semiconductor alloys for bandgap engineered light sources, nanostructured materials for biosensors and bioelectronics, and reconfigurable metal structures for thermal and electrical devices. My global interest is in the intelligent fusion of energy-domain ideas (electrical, thermal, photonic, and biological) with standard classes of materials (ceramics, composites, metals, semiconductors, and organics) to create devices that leverage new and enabling technologies to solve problems.

# The Big Idea

Your brand is the story of you and a quantity of equity, ethos, and identifiability that you build for yourself. You 'sell' that brand to those seeking your skills.

In the sense of what I'm talking about, the brand is a way of being that aligns how you want the world to perceive you with how you are actually perceived

Four things to consider: Be a hero (create value from nothing and give it away freely), show your journey (successes and failures), foster a culture of mutual interpersonal investment, work very hard to astound yourself

Don't wait to start: you have a countable number of days, those are your currency and you should be trading them for something valuable, something you believe in

# Marks of a Fantastic Personal Brand

Phenomenologically (but generally), there's a clear positive correlation between an opportunities-focused style (instead of a problems-focused style), and positive attitude, and the quality of results e.g. don't be a 'here's why we can't' person and do be a 'here's how we can' kind of person

Be a comprehensive designer: “a... synthesis of artist, inventor, mechanic, objective economist, and evolutionary strategist” (← B. Fuller)

A method of operation that is immediately recognizable: a charismatic style, a can-do attitude that focuses on solutions (a 'magic show' that reels people in)

Almost guaranteed, there will always be hurdles and shortcomings; the most effective inventors and innovators turn those shortcomings into features to exploit

# Five Quick BIG Things

- All of you who are here deserve to be here
  - Imposter syndrome is real, don't let it affect you or seek someone to talk with if it is
- Every one of you chose to be here, expect some academic adversity
  - E.g. difficult classes, hard work, tough questions, long hours, competitive positions, ...
- Apply consistent effort in an intelligent direction in order to succeed
  - Work hard and do it in a smart way and you're much more likely to make your own success
- Your life is your story, make it the story of your passions. Match your passions with charisma and you'll be much more successful than otherwise
  - Seriously, everyone says it because they're right. If you haven't found it yet then keep looking
- Identify clearly what you want, your expectations, and why those are valuable
  - Plans come next but starting without a destination isn't prudent and causes frustration

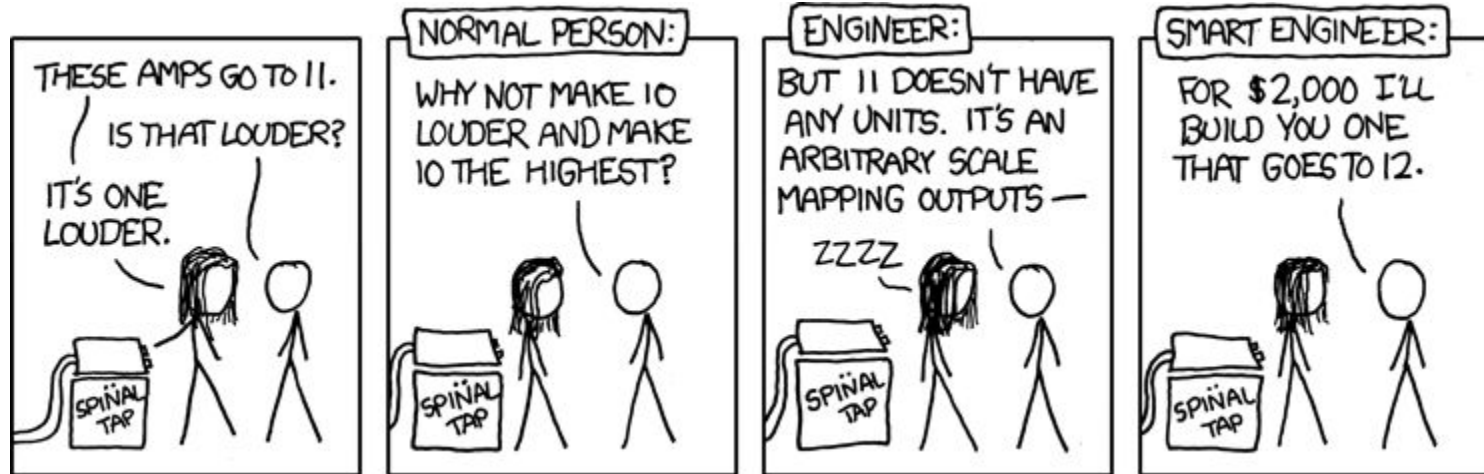
# Five Serious Truths

- Don't just develop, but perfect communication skills
  - If you cannot communicate the aspects of your work effectively, success will be elusive
- “We're young and expectations are low” is a trap
  - Low expectations are no excuse for lack of results on your part
- If you don't share what you're doing, nobody will know who you are
  - Show what your passions are, do things that you are proud of and that astound you! Don't waste time spinning your wheels on projects that aren't enhancing your capacity
- Life never begins ‘when...’ it started a long time ago
  - Don't wait for \_\_\_\_\_ to begin a project, start it now
- The greatest markers for future success are past successes
  - Don't wait to begin showing that you can do the thing! Apply for jobs, grants, fellowships, REUs, internships, etc... (you will gain a lot of extra valuable experience in writing applications)

# Okay, Just One More: #11

Nobody else in the real world is going to have really great ideas for you (probably)

You've got to make your own greatness and that's something you need to be actively pursuing while, or well before beginning to build your brand



<https://xkcd.com/670/>



# Where do You Start Building a Brand?

Start with research! Identify:

- Who do you respect in the field (know everyone!)
- What are you trying to do (what story will you tell when it's done)
- When will you get things done (impose personal deadlines, you're the captain)
- Where will your work be applicable (markets, people, ...)
- Why are you doing what you're doing (clear motivation for \_\_\_\_ looking for \_\_\_\_)
- How are you going to convince people that your \_\_\_\_ has value



# Who's Telling Riveting Stories?



# Pixar's 22 rules of storytelling:

#1: You admire a character for trying more than for their successes.

#2: You gotta keep in mind what's interesting to you as an audience, not what's fun to do as a writer. They can be v. different.

#3: Trying for theme is important, but you won't see what the story is actually about til you're at the end of it. Now rewrite.

#4: Once upon a time there was \_\_\_\_\_. Every day, \_\_\_\_\_. One day \_\_\_\_\_. Because of that, \_\_\_\_\_. Because of that, \_\_\_\_\_. Until finally \_\_\_\_\_.

#5: Simplify. Focus. Combine characters. Hop over detours. You'll feel like you're losing valuable stuff but it sets you free.

#6: What is your character good at, comfortable with? Throw the polar opposite at them. Challenge them. How do they deal?

#7: Come up with your ending before you figure out your middle. Seriously. Endings are hard, get yours working up front.

#8: Finish your story, let go even if it's not perfect. In an ideal world you have both, but move on. Do better next time.

#9: When you're stuck, make a list of what WOULDN'T happen next. Lots of times the material to get you unstuck will show up.

#10: Pull apart the stories you like. What you like in them is a part of you; you've got to recognize it before you can use it.

#11: Putting it on paper lets you start fixing it. If it stays in your head, a perfect idea, you'll never share it with anyone.

#12: Discount the 1st thing that comes to mind. And the 2nd, 3rd, 4th, 5th – get the obvious out of the way. Surprise yourself.

#13: Give your characters opinions. Passive/malleable might seem likable to you as you write, but it's poison to the audience.

#14: Why must you tell THIS story? What's the belief burning within you that your story feeds off of? That's the heart of it.

#15: If you were your character, in this situation, how would you feel? Honesty lends credibility to unbelievable situations.

#16: What are the stakes? Give us reason to root for the character. What happens if they don't succeed? Stack the odds against.

#17: No work is ever wasted. If it's not working, let go and move on - it'll come back around to be useful later.

#18: You have to know yourself: the difference between doing your best & fussing. Story is testing, not refining.

#19: Coincidences to get characters into trouble are great; coincidences to get them out of it are cheating.

#20: Exercise: take the building blocks of a movie you dislike. How d'you rearrange them into what you DO like?

#21: You gotta identify with your situation/characters, can't just write 'cool'. What would make YOU act that way?

#22: What's the essence of your story? Most economical telling of it? If you know that, you can build out from there.

# Some Fantastic Examples



**NileRed** ✓

1.54M subscribers • 239 videos

I find that chemistry is often taught poorly or without a purpose. Because of this, people tend to lose interest and sometimes even ...



**Violin MD**

629K subscribers • 106 videos

Hi, I'm Siobhan! I'm currently a 3rd year internal medicine resident in Canada! Before medicine, I was a **violinist** so you'll get some ...



**The Thought Emporium** ✓

513K subscribers • 126 videos

When we think of science and scientists, we tend to think of people in perfect white lab coats, working in a shiny and expensive ...



**Applied Science** ✓

637K subscribers • 245 videos

Subscribe to see interesting applications of **science** and technology. You'll see how an electron microscope was built in a home ...

# Some Fantastic Examples



**Cody'sLab** ✓

1.86M subscribers • 712 videos

Aright everyone CodyDon here! (usually shortened to just "Cody")  
Welcome to my channel! I simply post videos of the (sometimes ...



**Sam Zeloof**

21.5K subscribers • 48 videos

<http://sam.zeloof.xyz>.



**exurb1a**

1.69M subscribers • 73 videos

Universe is weird, yo. My books >>  
[https://www.amazon.com/Exurb1a/e/B06XFM14M8/ref=dp\\_byline\\_cont](https://www.amazon.com/Exurb1a/e/B06XFM14M8/ref=dp_byline_cont)



**Simone Giertz** ✓

2.19M subscribers • 90 videos

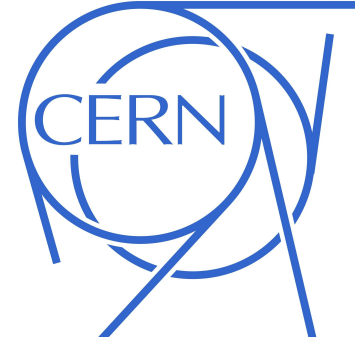
Maker/robotics enthusiast/non-engineer. Have become somewhat of an expert in shitty robots. Swedish but sound American just ...

# Facts about Fantastic Contemporary Examples

- These people are not geniuses
- They show their failures and learn from them
  - Outcomes different from their initial hopes do not demotivate them
    - Ideally the audience learns from their failures too
  - Reorganize and pivot intelligently when something isn't working
- They are passionate about what they do
  - Self driven, motivated, continuously improving
- Their professions are also their hobbies
  - They do what they love to do and make others excited about it at the same time
  - Constantly demonstrating how to be a comprehensive designer



# Who Does the Best Work?



# The Heilmeier Catechism



DEFENSE ADVANCED  
RESEARCH PROJECTS AGENCY

DARPA operates on the principle that generating big rewards requires taking big risks. But how does the Agency determine what risks are worth taking?

George H. Heilmeier, a former DARPA director (1975-1977), crafted a set of questions known as the "Heilmeier Catechism" to help Agency officials think through and evaluate proposed research programs.

- What are you trying to do? Articulate your objectives using absolutely no jargon.
- How is it done today, and what are the limits of current practice?
- What is new in your approach and why do you think it will be successful?
- Who cares? If you are successful, what difference will it make?
- What are the risks?
- How much will it cost?
- How long will it take?
- What are the mid-term and final "exams" to check for success?





# Assemble Your Team!

Choose your fighter



# Find A Champion!

- This is v. important, find someone who will be an incredible mentor
  - Maybe a professor, business contact, etc...
  - Someone who will write you a great letter of recommendation
  - Find a job, internship, research position, etc... that will be valuable for achieving your goals
  - Now find two more (this takes a lot of work but is infinitely valuable)

## DoD NDSEG Mentor Program

### Mentor Responsibilities

#### Overview

Guide and help shape the professional growth and learning of the Mentee and serve as a positive role model via a certain number of regularly scheduled **one-on-ones**

- Shares information about their background, skills and interests
- Tells mentee how they can help
- Listens actively
- Serves as a positive role model
- Helps mentee set educational/career goals
- Provides encouragement for building self-confidence and self-esteem
- Offers mentee constructive and meaningful advice and feedback
- Celebrates milestones and achievements with mentee
- Acts as a resource for information about careers

<https://ndseg.sysplus.com/NDSEG/Mentors/About>

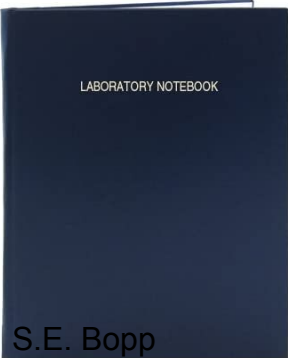
### Mentee Responsibilities

#### Overview

Seek guidance and constructive feedback on professional development and career goals via a certain number of **one-on-ones**

- Takes responsibility for keeping in regular contact with mentor and actively participates in the relationship
- Assesses academic/professional strengths, learning and developmental needs, values and short and long-term career goals
- Develops a plan with mentor for achieving these goals
- Follows through on commitments and goals
- Respects the mentor's time
- Maintains confidentiality at all times
- Openly shares successes and failures
- Is receptive to feedback and coaching
- Takes advantage of opportunities presented by the mentor

# Identify Your Tools!





# Develop Your Style!



# Essential Elements

- Find a champion and a network of mutually supportive people (Your Team!)
  - Identify mentors, make friends everywhere, invest in others success and find people who want to invest likewise in your success
- Share what you have If it's not going to make you a million dollars or get you a PhD, share it. Give it away for free (Be a Hero!)
  - The value of plans, code, etc... are much greater given away freely (which build your name and reputation) than the small amount of money that could be made from selling them
- Find ways to show your story and not just tell it (Your Tools!)
  - Use good storytelling strategies and make what you do exciting! People don't like boring
- Develop YOUR style, make it fun, and make it worthwhile (Be Awesome!)
  - What makes you different, awesome, new, etc...? This may take time and some trial and error but it's a valuable tool to set you apart from others and make your work identifiable

# Brand Tool Number 1! A Website

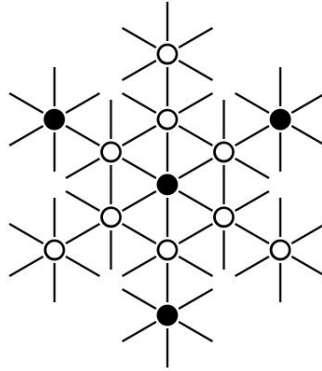
## Young Scientists Guide to Setting up a Website

June 19, 2018 / By Tom / Leave a Comment

**A personal website is great for building an online brand:**

- A polished website makes you look professional, committed, and knowledgeable in your chosen field.
- You can show off your awards, achievements, media coverage, publications, research/science interests all in one central place.
- You can blog your work, hone your writing skills, and reach a wider audience to get your name out there.

# Steven E. Bopp



About



Articles



Code



Publications



Resources



Visualizations

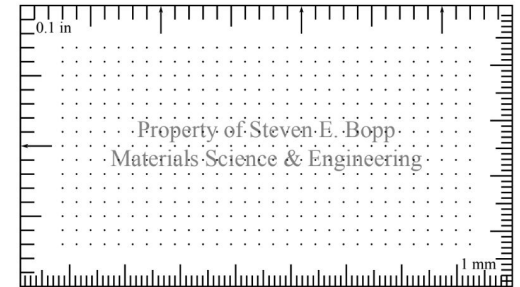
# Brand Tool #2! A Great Elevator Pitch

- If you cannot communicate the aspects of your work effectively, success will be elusive
- Use an elevator pitch to concisely convey your work and who you are to anyone! (Try to avoid jargon)
- Don't have just one! Practice three short explanations: why \_\_\_\_\_ is important
  - Have a short and informal one ~30 seconds (very quick, high level)
  - Have a medium and somewhat more formal one ~1 min (quick, high level plus details)
  - Have a longer one, ~2 min (longer, high level plus deeper details)



# Brand Tool #3! SWAG (Stuff We All Get)

- Invent, solve, make, and find awesome things and give them away for free!
  - Share what you have If it's not going to make you a million dollars or get you a PhD, share it. Give it away for free (Be a Hero!)
  - Give away things that have intrinsic value (something useful) with your name on them and your style reflected in them (this builds your brand tremendously)
- Have a business card!
  - Maybe it sounds cumbersome or silly but it's professional and quick
  - Say something about you! Link to all your stuff, ideally have something useful on the card
- Look for easily deployable useful things to give away



# Code

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**QE TiN Charge Densiy, ELF**

</>

**QE KPDOS for TiN**

</>

**QE epsilon.x for Au**

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**MATLAB BM EOS Fitting for Cu**

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**MATLAB Angle Between Planes**

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**MATLAB RBS Data Analysis**

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**Extract MATLAB .fig Data**

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# Resources



**Brillouin Zones**



**Blender Template**



**Refractive Indices**



**Solution Growth**

-1 0 0  
0 1 0  
0 0 1

**Space Groups**

A B C  
D E F  
G H L

**Strukturbericht**



**Structure Archive**





**Writing a Paper**



**Elements of Style**

EDITORIAL

# Ten Simple Rules to becoming a principal investigator

**John S. Tregoning**<sup>1\*</sup>, **Jason E. McDermott**<sup>2,3\*</sup>

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PLOS Computational Biology | <https://doi.org/10.1371/journal.pcbi.1007448> February 20, 2020

# Extra Brand Tools for Your Future!

Use Strategic Management Tools (lots exist)

- SWOTs (Strengths, Weaknesses, Opportunities, and Threats analysis)
  - For your own personal brand, work on your strengths and weaknesses, ALWAYS be identifying new opportunities and ideas (have a running list), and analyze threats to your work
- PESTs (Political, Economic, Socio-cultural, and Technological analysis)

Also think about SWAGs (Scientific Wild-@ss Guesses)

- A sort of back-of-the-envelope estimate based on scientific or engineering rules. Implication is that a SWAG can be proven (to be in the ballpark of accuracy) if necessary
- Honestly SWAGs are sometimes frowned upon since they are guesses, optimize number of SWAGs for both speed and credibility (not too many)
- Fact though, the smaller the fraction of information (with respect to being perfectly informed) you can operate on gives you an edge (extract value from asymmetric information)

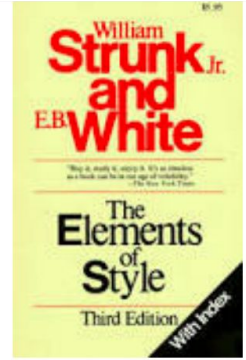
# SWOT ANALYSIS



[https://en.wikipedia.org/wiki/Strategic\\_management#/media/File:SWOT\\_en.svg](https://en.wikipedia.org/wiki/Strategic_management#/media/File:SWOT_en.svg)

# Outline for Getting it all Done

- Express what's in your mind, put ideas on 'paper'
  - Inkscape, Blender, FreeCAD, LibreOffice, the Elements of Style 3ed., etc...
- Intermediate products: use your tools!
  - Deadlines, prototypes, new versions, etc...
- Final products:
  - Website, elevator pitch(es), companies, books, etc...
- BIG GOALS
  - I want \_\_\_\_\_ and I know that my goal is worth achieving because of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_! I am doing \_\_\_\_\_ to make that a reality!



The Elements of  
Style (with Index)

**\$3.96**

Used

# Conclusions! (Whew, we're almost done!)

- The biggest part of this is being a 'hero' That's an instant path to allies
  - Align the way you are perceived with how you want to be perceived by being excellent; demonstrate how you are becoming what you are seeking to become (that's the essence of the brand)
- Find a champion to make you stronger, be one for others, build a community
- Failure is part of the journey to success, use it to your advantage
- Be critical of your direction, make sure that what you are doing has value
- Do your research: know your field, build a community, identify your tools, develop your style!
- Go forth aiming to astound yourself! Anything less is devaluing yourself
  - Going into a new project knowing how to do every aspect is probably spinning your wheels (exceptions may be making money, helping charitably, etc...)



Thanks!



you're doing amazing sweetie

&lt; Code

Issues 0

Pull requests 0

Actions

Projects 0

Wiki

Security 0

Insights

Settings

No description, website, or topics provided.

Edit

Manage topics

139 commits

1 branch

0 packages

0 releases

1 environment

1 contributor

Branch: master

New pull request

Create new file

Upload files

Find file

Clone or download



sbopp Update about.html

✓ Latest commit e1c33b9 19 minutes ago



css

Update style.css

9 months ago



doc

Add files via upload

last month



img

Add files via upload

5 months ago



CNAME

Update CNAME

17 months ago



about.html

Update about.html

19 minutes ago



articles.html

Update articles.html

9 months ago



books.html

Update books.html

9 months ago



code.html

Update code.html

last month



index.html

Update index.html

9 months ago



publications.html

Update publications.html

5 days ago



resources.html

Update resources.html

17 months ago



robots.txt

Create robots.txt

12 months ago



visualizations.html

Update visualizations.html

5 months ago

# Quick Start with a Google Domain and Github

⚙️ Registration settings

DNS

🌐 Website

📊 Reports

✉️ Email

🔍 Get a new domain

💬 Send feedback

❓ Help and support

🇺🇸 United States (US \$)

## Synthetic records

Synthetic records allow you to add common features, such as domain forwarding or G Suite, to your domain in one step. Each synthetic record is an automatically-generated collection of resource records related to a specific feature. [Learn more](#)

Subdomain forward ▾

Subdomain

.sbopp.com →

Destination URL

Add

☒ Temporary redirect (302)

☐ Do not forward path

☒ Disable SSL

☐ Permanent redirect (301)

☐ Forward path

☐ Enable SSL

> Email forward

View setting

Delete

## Custom resource records

Resource records define how your domain behaves. Common uses include pointing your domain at your web server or configuring email delivery for your domain. [Learn more](#)

@

A ▾

1H

IPv4 address

+

Add

Name ?	Type ?	TTL ?	Data ?		
@	A	1h	192.30.252.153	Delete	Edit
www	CNAME	1h	sbopp.github.io.	Delete	Edit

# A Big List of Things!

- Build a network of mutually supportive people, lone wolves look difficult to work with
- Know your field, have no strangers
- Always be learning
- Volunteer for projects, presentations, responsibilities
- Be around, 99% is showing up
- Never eat your lunch alone, always be meeting with people
- Be generous, give good things away (where it is legal and/or allowed)
  - Be happy to help
- Your life is obviously the story of you; it is valuable to be embarrassed by things you've done in the past because that means you've grown
- Take pictures of everything, all your projects. Make them look good
  - Have pictures of yourself working on projects with and without others
- DO NO HARM
- Open and honest should be your ethos
- Breaking things, failure, not knowing are NOT BAD; misrepresenting what you have done or your own abilities IS BAD
  - That is not to say that you cannot evolve, I've never had a job I was quite qualified for in the beginning so you can learn quickly and get on the level
  - Lying hurts you
  - People are VERY

# A Big List of Things!

- Failure is important
- Be very excited to share yourself but equally or more excited to listen to others who want to share with you
- Quality is vastly superior to quantity
- Maintaining regular contact with an adviser/mentor/professor/brain-trust is very important to make sure that you've not missed something that might be obvious to a peer or superior
- Check your email all the time
- Have an elevator pitch and a personal business card with something useful on it
- Attitude is the most important factor in success and people perception of you
- Apply effort in an intelligent direction for success, blind effort will rarely lead to success
- Contemplate the nature of your projects. At the beginning especially, why you are doing something is much more important than your specific results. A solution to a meaningless problem is valueless
- Find what you are passionate about, you'll always be more successful in that than something you're not passionate about
- You chose to be here, you should expect some adversity
- Everyone who is here right now deserves to be here
- Days are currency and every night you're poorer a day, what are you spending yourself on
- Devise a standard of work for yourself or with your adviser/whoever
- Take projects through the finish line