

This is a yearly update/review letter I send out to mentors and closest friends who I want to keep updated. This installment is from January 2014.

Maxim's 2013

I just finished my first semester at Princeton, so I figured that now would be a good time to take a look back at last year and to set concrete plans for this year.

Highlights of 2013

- At the beginning of this year, I was still a junior in high school. I decided to apply to several universities as an experiment, and got into Princeton and Berkeley. In April, I visited and loved both. I ultimately decided to go to Princeton over Berkeley because the ambiance and community is fantastic at Princeton, and because Princeton would give me unique opportunities to choose what I want to study. I'm learning so much here at Princeton (stay tuned for more details on this), and this is the happiest I've been in a long time.

Deciding to drop out of high school at the end of the year was very hard — it meant that I would have to part with friends, mentors, and family early (although I guess I didn't finish middle school, either, but that was different). I miss them all, but I think that this is probably the best decision I've ever made. I'm very grateful to all who supported me in this move!

There were some funny parts to the whole applying-early process. For one, it turns out that all it takes to get a California high school diploma is a 3-hour test that's way easier than the SAT... and you're eligible to take it as soon as you complete 10th grade. Second, my story got picked up by 10News, a local news station. I wasn't expecting my first TV interview to be about something like this and with me sporting a full-on graduation sunburn! Then, one day on my Southeast Asia trip, I woke up to find my Facebook wall plastered with links to a Business Insider article that I had no clue was being written — apparently they had gotten wind of the 10News article somehow.

Here's the link to those articles: <http://maximz.com/press>

- This summer, my parents and I spent a month in Southeast Asia. At several universities and government agencies in Thailand, Vietnam, and Cambodia, we gave workshops on how to manage and integrate their hydrologic data using web services and catalogs in a system known as CUAHSI HIS. The agencies in these countries have set up their own water observation stations along the Mekong River, but they all use different data systems. With this unified system, they can communicate and share water data.

Here's the link to those workshops: <http://workshop.elfeon.com>

- A few days after we returned from Southeast Asia, I left for the 2013 meeting of the Human Behavior and Evolution Society in Miami. This was a continuation of my work with Moshe Hoffman, a postdoc at UCSD and Harvard who I first met in San Diego back in January 2012. The week-long conference was a very interesting exposure to evolutionary psychology for me (and an introduction to scientific discussions in hot tubs). Then we traveled to Cambridge, and I spent three weeks at the Harvard Program for Evolutionary Dynamics. I focused on simulations for Moshe's evolutionary game theory projects, on a project relating foot size and facial attractiveness to test a sexual selection theory (turned out to be inconclusive despite our best efforts), and on discussing exotic ideas till 5am. The people in the lab introduced me to a whole new class of problems to work on that I had never considered. I left this brief stay at Harvard

super excited to go to Princeton and get my hands dirty working on cool problems.

- I spent August helping out at NeuroVigil and catching up with friends before leaving for school. Princeton started late (second week of September), so I even had time to dress up in uniform as a Bishops student and return to high school for a day (I had this exchange many times that day: “Didn’t you already graduate?” “Well, no, not technically...”)
- I arrived to Princeton in September lugging two suitcases in my wake, filled to the brim with books, clothes, treasures from home, and the irrepressible sense that I was set for the next four years (which was soon invalidated). I took these classes:
 - **Computational physics.** In seminar, we explored the breadth of physics problems, then focused on particle physics and especially dark matter (direct detection of dark matter is the research focus of the professor). In our 3-hour labs, we first looked at particle physics (e.g. Rutherford scattering, particle detection, the Quark model, Hubble's law for expansion of the universe, black holes), then applied numerical methods to simulate these physical models in Python, using FFTs, Monte Carlo algorithms, ODE solvers, least-squares fitting, etc.
The final project for the class was to parse 30+ pages of papers outlining the theory of direct detection of dark matter particles, then build an exclusion plotter that uses null results from these experiments (they are calibrated to certain mass ranges) to find boundaries on the mass and cross-section ranges where dark matter particles can be found.
 - A music class called "**Projects in Jazz Performance**", taught by legendary saxophonist Mark Gross. For three hours every week, we would divide into small ensembles and perform jazz standards, then would receive critique and fix mistakes and performance style. So much fun.
 - **Linear algebra** — very useful for game theory and for computer science.
 - **Physics (mechanics)** — mostly a repeat of physics class during my last year of high school, but with really exciting demos and a good professor.
 - **General chemistry** — mostly a repeat of high school chemistry.
 - Writing seminar — this "**Ethics of Persuasion**" class threw us into the deep end of looking at how essayists and journalists structure their arguments. I emerged with a new-found appreciation of developing and demonstrating ethos as a writer, and I've fallen back in love with reading for pleasure. (More on this very soon!)
- In November, I spent a weekend in NYC at the Thiel Under 20 Summit. I made many connections at the Summit, but ultimately decided not to apply for the Thiel Fellowship this year.

This weekend trip was my first time CouchSurfing. I stayed in Chelsea with an upbeat and very intriguing guy named Douglas, and he shared some interesting stories from his work and his travels. He tells me that participating in CouchSurfing is all about the cultural exchange for him, as he regularly hosts people from Europe and Asia. Back at Princeton, I shared this idea with a buddy on my floor, and we've since listed our space on CouchSurfing.

- My parents visited me over Thanksgiving, and we stayed in an Airbnb apartment in Harlem. We explored the area, got some work done, and spent our evenings in hole-in-the-wall jazz clubs. A relaxing break!
- I'm on the Speaker Series team in the Princeton Entrepreneurship Club — this fall, we hosted a talk and dinner with Alexis Ohanian, the co-founder of Reddit. More events to come this spring.
- To wrap up the year, we had a Princeton Pianists Ensemble concert, featuring piano quintets. I played a Shostakovich Concertino duet. Video link: <http://goo.gl/7soJiP>

- I spent winter break at home in San Diego, working on finding a summer job and setting goals for the coming year. I also spent two weeks learning how to drive, and got my driver's license. Too bad you have to be 18 to drive here in New Jersey!

What didn't go well

In retrospect, I regret spreading myself too thin between projects. This issue prevented me from continuing to work with many of the researchers at PED after I left Cambridge. This is also why it was so hard to find time for side-projects and music and extracurriculars in the last year of high school (since I was doubling up on classes and spending all my time on schoolwork in order to get into college early, I had to make sacrifices). And this is why Legato (my piano sharing project) has sat untouched and unvalidated for way too long.

At Princeton, thanks to the way I've been rearranging my time, I know understand how to solve this problem.

Take-aways: what went well, and the lessons I've learned

One of the most influential and exciting parts of this semester was Mastermind.

My friend Fiz decided to start a group with my friend Andrew and me dedicated to fighting the overwhelming routine of only including academics in our lives and losing out on the personal development and extracurricular opportunities that the Princeton community has to offer. Fiz explained this "Mastermind" group to us as a custom combination of the most useful techniques he had gathered from reading many philosophical self-actualization and getting-things-done manuals and manifestos over the years. The system encourages you to proactively budget time for your long-term goals and routines, and your buddies help keep you accountable.

Our meetings are like rituals. Every Friday at 8pm, we convene in a conference room. Tardiness is frowned upon, as is coming unprepared! We each bring a color-coded spreadsheet — updated daily — that tracks how well we have followed the routines we set for that week. The counter starts at 1 when you start a routine, and for each day that you continue the streak, the number increases. Doing well means that your cells are colored green, but if you fail to achieve a routine one day, you drop to 0 and mark that cell red.

We present this chart to the group along with a written weekly review, detailing what went well, what didn't, and what changes we ought to make for next week. At this point, we open the floor for questions, feedback, and discussion. Usually, this involves revisiting the major short-term and long-term goals we are working towards, helpfully outlined in each member's master Dream List of goals with associated implementation schedules and notices of potential pitfalls to avoid and resources to seek. We leave with a concrete list of next steps.

Through Mastermind, I've seen the value of adding one new routine at a time, as opposed to jumping into everything at once and failing quickly. One insight Fiz offered from the get-go was living proactively and not reactively — and I made that the focus of many of the routines I added throughout the first semester. I began by incorporating keystone habits that prepare me to be successful each day, so the routine I tracked the first week was getting 8 hours of sleep per night; this practice ensures that each day can be productive and starts off on the right note. Once I started to comply, I shifted my sleep schedule to become a morning person (something I've always dreamed of being), and waking up earlier made me way more efficient. I found myself addicted to being in the "green" there; my desire to avoid breaking my streak of waking up early proved to be very convincing for continuing the routine. When I was content with my progress, I next turned off all distractions, adding a routine to check email no more than twice a day at pre-arranged times, and "batch"-handling all messages at once (Tim Ferriss-style) to reduce the number of times I shifted gears throughout the day. These all seem like minor changes — but when I actively

choose to incorporate them into my daily lifestyle, they have profound effects. For example, the simple changes in sleep schedule and availability of distractions have paid off in productivity and happiness with more time on my hands.

I find a certain playfulness in the group. By convincing each other to embark on this process of expanding our horizons, we've become the closest of friends. And as extreme as the procedures may sound, laughter permeates many of our Mastermind get-togethers.

Plans and goals for 2014

If I were to assign 2014 a theme, it would be my **Year of Revolution**:

- Getting back into learning on all fronts and becoming a refined person — especially through reading and writing
- Diving into new and completely unexpected projects by meeting and working with researchers here
- Becoming healthier
- Learning to sell products and get customers

I've fallen back in love with reading, and I'm setting out to become a **"collector of metaphor"**, as **Ray Bradbury once put it**. Reading more will not only make me more cultured and open me up to new philosophies and ideas that push my thinking leagues further, but it will also give me new creative and logical tools: a bank of metaphors to draw from, a reservoir of inspiration to tap into, and an understanding of structure and argument to condition myself into expressing myself well as I start to **read and write on a regular basis**.

I'm calling this project "Man of Metaphor" (hat tip to Bradbury). Every week, I plan to read books or short stories three times a week for an hour before bed. I'll also write once a week for an hour. Further, I'd like to discuss my readings with friends, because it seems that reading books together is one of the few things that forms very strong connections.

In the grand scheme of things, this entire undertaking is a small change, but by putting in this effort, I truly think I'll change the way I view life and will launch myself into new spheres of thought I'm not even currently aware of. It will make me a man whose soul is full of art, culture, metaphor, thoughts, theories, and ideas, who shouts fie upon the archetype of the engineering major! (Learning to become a Man of Metaphor also involves finding the balance between self-expression and unrestrained metaphors...) What will I write about? Well, just writing about anything will keep the writing part of my brain from atrophying. But I'll probably write about my thoughts on the literature I'm reading and on the cultural influences I'm absorbing. And I have some interesting stories of my own to share.

This is pure spiritual, logical, and creative development. Through this process, I'll become more cultured, inspired, and philosophically content, and I'll gain the tools to express myself. I think I'll also condition my mind into proper logical structuring of arguments and successful reasoning strategies.

That brings me to another reason why I'm reading: I want to live my life in uncharted waters, working on the hardest, most exciting problems I can find. Rational thinking won't get me very far in decision-making in these circumstances. So I need to train my gut to make wise, balanced decisions. Reading philosophy will make me think in ways that will grow my experience.

On top of all that, reading will expand my visions for what problems there are to work on and what things are interesting!

Now, that's also why I'm pursuing the goal of **finding new mentors here at Princeton**. Speaking and working with them will broaden my horizons and expand my understanding of what problems exist for me to potentially tackle.

Moving on. Another big new project is **health-related**. I've discovered a love of biking and of the outdoors, so I'm going to be dedicating time to exercising on a regular basis, both to be healthy and to have optimal cognition.

Finally, my latest undertaking is **learning to sell**. I'm very excited about entrepreneurship, and later in life my goal is to start and grow a company with innovative science at the core and a viable business model around it.

I'm working on getting my science chops in order by learning more CS skills (e.g. machine learning) through taking classes. I'll continue learning how to work on a team and how teams should be managed by working somewhere exciting this summer. By meeting with mentors and researchers here to get a broader sense of the problems out there that CS can and should be applied to, I'm expanding my range of possible fields to jump into. All this is progressing nicely — but one part is missing so far: I have to learn how to **sell products and get customers/users**.

That's why one of my projects for this year is to build a business that does something trivial (in the technical sense of things — nevertheless, it is a value-add for customers/users) but attracts lots of customers. It's just to learn how to sell. Here are good examples of what I'm talking about:

- The passive income/side business/muse idea in *The Four-Hour Workweek*.
- Noah Kagan's Sumo Jerky project: basically, for a 24-hour business challenge, he started a monthly subscription service for beef jerky lovers where the value-add to customers is that they get jerky for cheap, it's convenient, and they get to try a new type every month. Very simple idea, trivial to create; \$1000 of profit on day one. That's a lot of users!
- This interest in learning to sell is also why I've been helping my friend Fiz with launch strategy for his new company Luminare.

This summer, I'm considering doing research about applying CS to tackle problems in other fields. And I'm considering working in startups or large companies as a PM or data scientist, since these roles are new and very interesting for me; doing a dev internship on a great team would be exciting, too. Finally, I'm also looking for apprenticeship/understudy internships, where I work directly with someone I really respect and admire — acting as their personal assistant, being in all their meetings to learn how they do strategy, how they lead companies/teams, etc., and working on a project directly under/with them.

Last but not least, I'm continuing my hobby of playing **music**. I finally brought my alto sax to Princeton over winter break, and I'm going to start organizing jam sessions on campus. I'll be taking a conducting class, too.

To wrap up

First, a quick update since I sent the above yearly update to my mentors. I've been spending a lot of time on my piano mapping project Legato Network (<http://legatonetwork.com>). The idea is that when you travel, I'll find you a piano you can practice on, either in a public place (like a hotel, museum, or restaurant), or in a private place (parents whose kids have gone off to college can keep their piano from just sitting around and collecting dust by listing it so other musicians can use it from time to time).

I announced the project online and got a huge response. Now I'm working hard on making matchings between people who own and who want pianos, and soon I'll recruit a team to help me with this. Eventually, I hope to turn this into the first centralized online community for musicians.

That's just one of the projects I've been spending lots of time on. My chats with professors here on campus have propelled me into exploring all kinds of new directions. And as I explained above when I mentioned my Man of Metaphor project, I've been reading a lot more philosophy, and I'm already beginning to feel the way it is changing my life.

I'm so happy to be where I am now, and I can't wait to get back to work on my new goals and projects. I am very grateful to all my close friends and mentors for their kind support and advice. If you have any feedback, please send it my way!

Thanks for being a part of this chapter of my life, and all the best.

— Maxim

P.S. Here are some pictures from my semester at Princeton: <http://bit.ly/mzs1picts>