



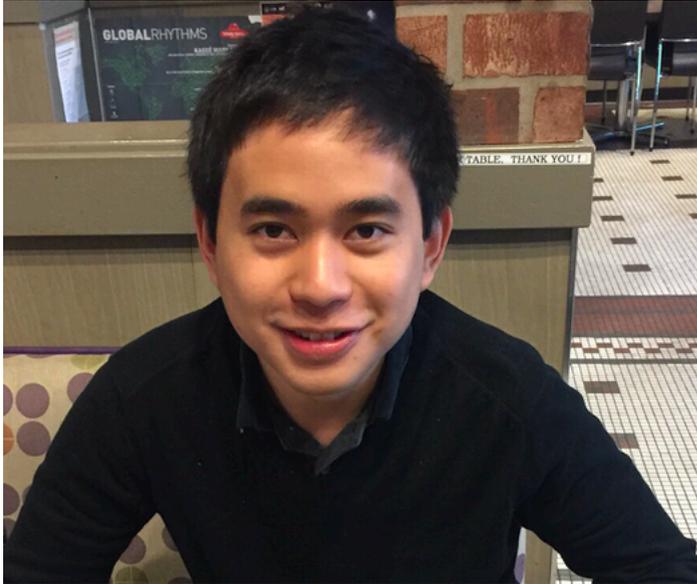
PhD Journey: Advice and Lessons Learned

Adhiguna Kuncoro

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@Doctrine Welcoming PhD

About Me



Adhiguna Surya Kuncoro

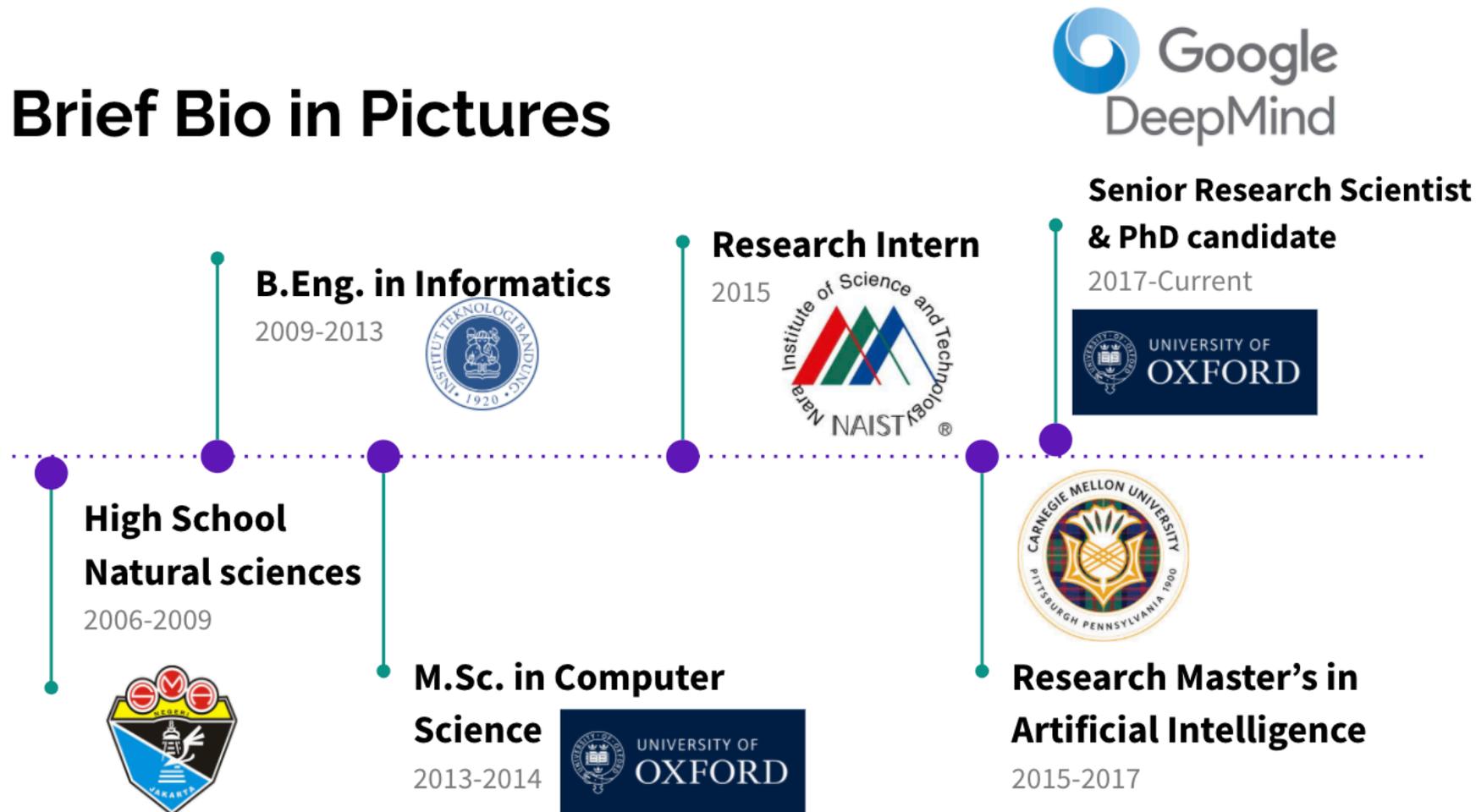
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- Senior Research Scientist at Google DeepMind (London); an AI research company based in the UK, now part of Google's parent company Alphabet (acquired in 2014).
- Final-year PhD student in Computer Science at the University of Oxford (Oxford, UK)

All views in this talk are my own

About Me

Brief Bio in Pictures



Outline

- PhD Advice
- Life Advice

All views in this talk are my own, and are based on my personal experiences as an Indonesian PhD student who almost finished my study, as a research scientist in industry, and as a husband and father 😊

PhD Advice

- A PhD study is full of ups and downs.
 - There were many highlights and high points: Winning best paper awards, getting papers accepted to top conferences, getting good reviews, submitting my thesis, getting cited, travelling to new places, etc.
 - There were moments when I do not know why I am doing a PhD, and felt like I was not making progress at all, and just wanted to quit.
 - There were also many depressing paper rejections in the process.

- My first advice is: Understand your motivations, and be honest to yourself.
 - My belief: AI is a really powerful technology that can help many, many lives.
 - I need a PhD to be an expert in AI, and also to advance further in my career.
 - Doing a PhD and publishing papers is the main way of being a top expert in AI.
 - Remember this motivation during the ups and downs (especially when writing up the final thesis, which was a boring and tedious process for me).

PhD Advice

- Ask as many questions as you can!
 - Yes, even stupid ones.
 - It is not something that is commonly done in Indonesian culture, but something that we should do more of.
 - You will be surprised at how many things are done that way because “that is the way it has always been”.
 - Don’t be afraid to change things, if you believe that is the right thing to do.
 - **Ask for help if you are stuck --- don’t suffer alone!**

PhD Advice

- Your relationship with your advisor is perhaps the most important relationship during your PhD career.
 - They will be your sponsor, your mentor, and your advocate.
 - They are your gateway to the research community: They will tell you how to pick a research question, what ideas to try, how to write a good paper, how to find a job, etc.
 - Do your best to maintain a good relationship with your advisor.
 - A kind and smart supervisor is worth their weight in gold.
 - But things don't work well, look for solutions (including changing advisors if necessary).

PhD Advice

- Whom you know is really important.
 - Yes, even within the research community.
 - For networking: quality over quantity.
 - Be nice to your colleagues (both your seniors and your juniors) & your professors.

- The best way to build a network is to help people!
 - Introduce people to one another.
 - Take the time to read their papers carefully, and give feedback.
 - Invite them to give a talk.
 - You don't know what the future holds: whom you help today will be the basis of who will help you in the future.
 - Future opportunities can come from anywhere.
 - **People won't forget if you helped them in the past.**

PhD Advice

- Every paper rejection hurts --- that is the way it is.
 - This still holds even if you have 1, 10, or 100 papers.
 - Remember: **it is not personal.**

- All that reviewers see is the paper submission. They don't see:
 - Who you are.
 - How good you are as a person.
 - How much work you've put into the paper.
 - How much your career depends on the paper.

- **Remember: What reviewers think of your paper is not a reflection of who you are.**

- **Remember: Rejections still happen to the very best of researchers.**
 - Yes, even those with tens of hundreds of thousands of citations.
 - Yes, even Nobel Prize winners.
 - **It is not personal.**

PhD Advice

- A PhD is ultimately about doing novel research.
 - Don't neglect teaching, networking, extracurricular activities, etc.
 - But your PhD dissertation is about your research.
 - The Post-PhD job search will also hinge on the quality, quantity, and impact of your research.
 - So be sure to leave enough time for your research.

PhD Advice

- Your PhD work shouldn't be your magnum opus.
 - **Done is better than perfect.**
 - Your PhD work should be your **worst work**.
 - Not at all because it's bad, but because it's your work when you are **still learning** how to do research.
 - It should be your worst work because you will **even better work** after the PhD, once you have learnt how to do research.

- Completing a PhD is only the beginning.
 - You will still have a very long career after the PhD.
 - It's not about getting the 3-letter word after your name. Rather it's about **the journey**: Learning how to do research: Articulating a research question, identifying a gap in the literature, forming a hypothesis, testing that hypothesis, and writing up and explaining that research to people within the scientific community and to laypeople.

Outline

- PhD Advice
- Life Advice

Life Advice

- Family comes first.
 - I experienced this first-hand when my daughter was born in my first year of PhD: everything stops for a while.
 - Raising a family so far from home and with little family help is challenging.
 - But that is the fun! You will remember the struggle in the years to come.
 - Be kind to your spouse (whether or not they are also working or working from home): **be a team.**

- Call your parents, grandparents, and other family members often.

Life Advice

- Communication skills are really important.
 - No impactful projects can be successful through technical skills alone.
 - Computers, COVID vaccine, etc. --- **all of these are the results of team work**. E.g. who invented computers?
 - Learn to communicate to a technical and non-technical audience.
 - The more you progress in your career, the more communication and persuasion you will have to do.

Life Advice

- Be kind to yourself.
 - Try your best, but ultimately be kind to yourself.
 - Enjoy the ride, take breaks and recharge here and there.
 - You will come back stronger after a good break.

Life Advice

- Progress is very much non-linear.
 - **Do not compare yourself to others.**
 - Everyone's journey is **very different.**
 - What looks like overnight successes are often many, many years in the making.
 - Do your very best --- don't focus so much on what others have, and don't be envious of others' successes.

Life Advice

- Make a difference.
 - **It is an incredible privilege to study in the UK.**
 - Make your little corner of the world a better place.
 - Many ways to make a difference, **wherever you are based.**
 - Mentor younger students who also want to study abroad, give feedback on their applications, etc.
 - Write articles about how to get scholarships, what the process is like.
 - Open-source your dataset and your code.
 - It is not about what/how much you have, **it is what you do with it.**

Life Advice

- Welcome to the wonderful community of Indonesian students in the UK.
 - Enjoy the ride, and let's do the best we can to make our little corner of the world a better place 😊

THE END & THANK YOU