

# Pursuing Research As A Cummins Undergrad

Michelle Davies Thalakottur  
30th June 2020

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- This is a general discussion about undergraduate research.
- I will discuss privilege wherever relevant and aim to be as transparent as I can.

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- Share my experience. There weren't any seniors who publicly talked about research to me and I wish there had been.
- Hope that you will carry this forward.

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- BE Project is also a Research Project sponsored by IIT Bombay  
Topic: Formalization of a Programming Language  
Domain: PL, Compilers

# Part I

## What is Research?

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- Spectrum of research: Incremental  $\leftrightarrow$  Fundamental

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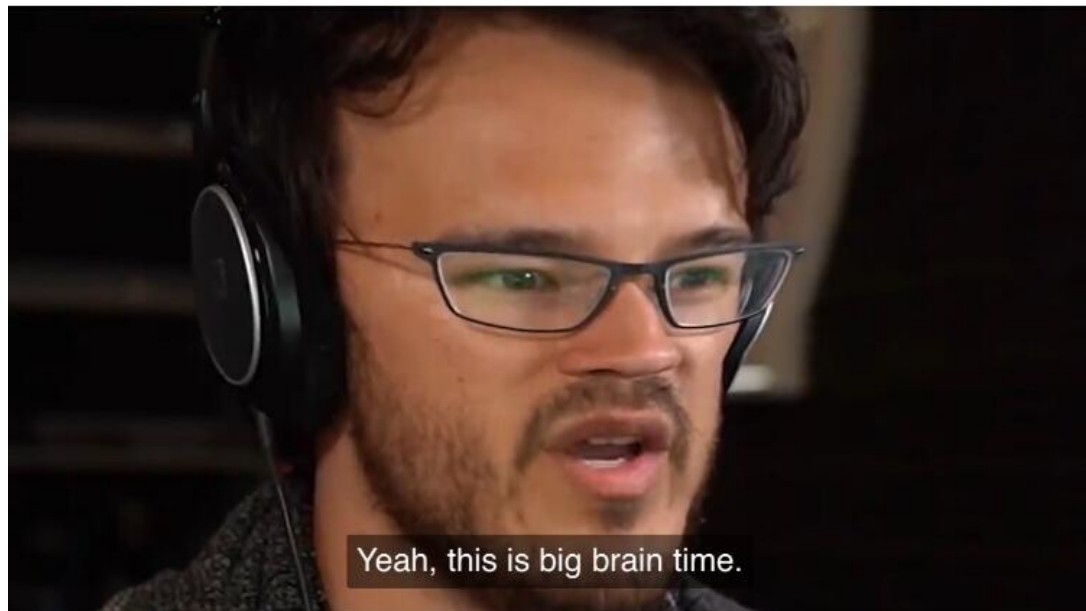
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- Personally, it is fun, intellectually stimulating and enriching. You might end up making a career out of it.

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**You are what you tell yourself. Don't hold yourself back.**

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Enter: Research internships! A good way for you to try out research.

## Part II

How do you 'do' a Research Internship

A. Before applying

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Either can be a field that interests you. If your interest is due to how impressive a field sounds, realise that that isn't sustainable.

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Learn how to learn by yourself.



## B. Applying

# Common advice

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- Keep up a good CGPA and professors will ask you to work for them.
- Getting a research internship is a meritocracy.

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- Higher success rate and they might be more invested in your doing well than a random stranger (hopefully).

*\*Ask your seniors to recommend professors to work with and refer you (if they can).*

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P.S. You might need LORs from them in the future and if you speak to them, they can write more about you than a DWIC LOR.

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[How to read a paper](#)



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# Research programs

- IIT's have research programs that you can apply to. Look online for more program web-pages. Most applications begin in January.
- IISc's [SRFP](#) program and [INAE](#)'s summer program would (hopefully) be worth your time and effort. Some applications end in November.
- Foreign internships:

The exorbitant fees may not be worth it.

Charpak, CERN, TIFR, etc. *I had sent an email about this. Please refer to it for more links and information.*

Good luck!



## C. After Applying & During the internship

Impact, Impact, Impact

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## Part III

My experience, briefly

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- My parents support and encourage my decisions. That can be rare, quite unfortunately.

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- Choosing to go for opportunities where you aren't paid is also weird.

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- I love learning. It fills me with a lot of joy to learn and think about these research problems, which is why I love it so much and think it's this much fun.
- If you're like me, you might just find it to be as fulfilling as I do.

# Resources

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If it seems really easy, you might not be getting the whole story.

# AMA: Ask me Anything!

You can read about the specifics  
of my internship at IIT Patna [here](#)

*Connect with me*

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