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Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Randelas for your Research

Make today matter

DEEP LEARNING INDABA

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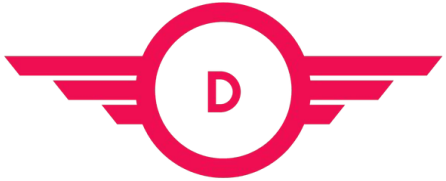

Data Science for Social Impact

Overview

- Students
- Points to consider
- Researchers/Faculty
- Other opportunity

Caveat: This is an opinionated guide

Contributors

Nyalleng Moorosi
- *Google AI*

Bubacarr Bah
- *AIMS South Africa*

Mmaki Jantjies
- *UWC*

#ResearchTwitter
- *Twitter*

But First

Apply! Apply! Apply!

Students

So many choices

- University Funding
- National Funding
- Private Organisations
- International Funding

What do you need funding for?

- Tuition
- Living Expenses
  - Shelter
  - Allowance
- Research Expenses
  - Publishing
  - Conferences
  - Equipment
- Others
- Be clear

University Funding

- Always check the research/financial aid/funding office and ask for available.

  “So necessary. Please impress and build trust”

- Ask your supervisor/possible supervisor.
  - Have an honest talk.

  “Academics sometimes get random requests for students needing funding or internship opportunities. ***If they don't know your needs they won't recommend you*****.** Standing out means having that funding conversation with the HOD, research office and your supervisor!”

National Funding

- Many options
  - DSI
  - DHET
  - NRF
  - Science Councils
    - CSIR
    - MRC
    - ARC
    - etc.

science
& technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

Private Organisations

- Bursaries, Scholarships, Fellowships etc.
  - Mandela-Rhodes
  - Oppenheimer Memorial Trust
  - DAAD In-Region PhD Scholarship Programme at AIMS South Africa
  - Claude Leon Foundation Postdoctoral Fellowships

International Opportunities

Like local, but more international.

- Fulbright (USA)
- Rhodes (UK)
- Commonwealth (UK)
- Chevening (UK)
- DAAD (Germany)
- International University Linked etc.
- Research Companies

Understand each institutional mandate. Funding is often aligned to this.

International Opportunities

- Machine Learning and Data Science
  - Google AI Residency
  - Google X Residency
  - Facebook Research Residency
  - Microsoft Research
  - PhD Research internships
    - Typically ***June-Aug***,
      but ask for ***Dec - Feb*** as well.

International Opportunities

Resources: https://sites.google.com/aims.ac.za/bubacarr/links?authuser=0

https://www.advance-africa.com/List-of-Scholarships-for-International-Students.html

Postgraduate opportunities

Here are some links to postgraduate opportunities with funding (particularly in mathematics) open to African students.

- African Institute for Mathematical Sciences (AIMS) in South Africa, Senegal, Ghana, Cameroon, Tanzania.
- Eramus Mundus Joint Masters and Joint Doctorates.
- German Academic Exchange Service (DAAD) scholarships.
- VLIR-UOS scholarships.
- Schlumberger Faculty of the Future
- Commonwealth Split-Site Scholarship
- Google Anita Borg Scholarship
- Organization for Women in Science for the Developing World (OWSD)
- National Research Foundation (NRF)
- Africa PhD Fellowship Program
- Google Travel and Conference Grants
- Claude Leon Foundation Postdoctoral Fellowship
- Commonwealth Rutherford Fellowships
- ACM SIGHPC/Intel Computational & Data Science Fellowships
- 2018 Microsoft AI Residency program

Students & Supervisors

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You and your supervisor

- Make sure you match (some at least):
  - Topic
  - Work Style
  - Expectations
  - Funding
- Interview potential supervisors
- Ask to talk to their lab members

Researchers/ Faculty

You have many things to apply for

- Not enough time to cover but look at your research office.
- Make friends with your research funding office.
- Let them know what you are interested in and what your ambitions are.

Support your students!

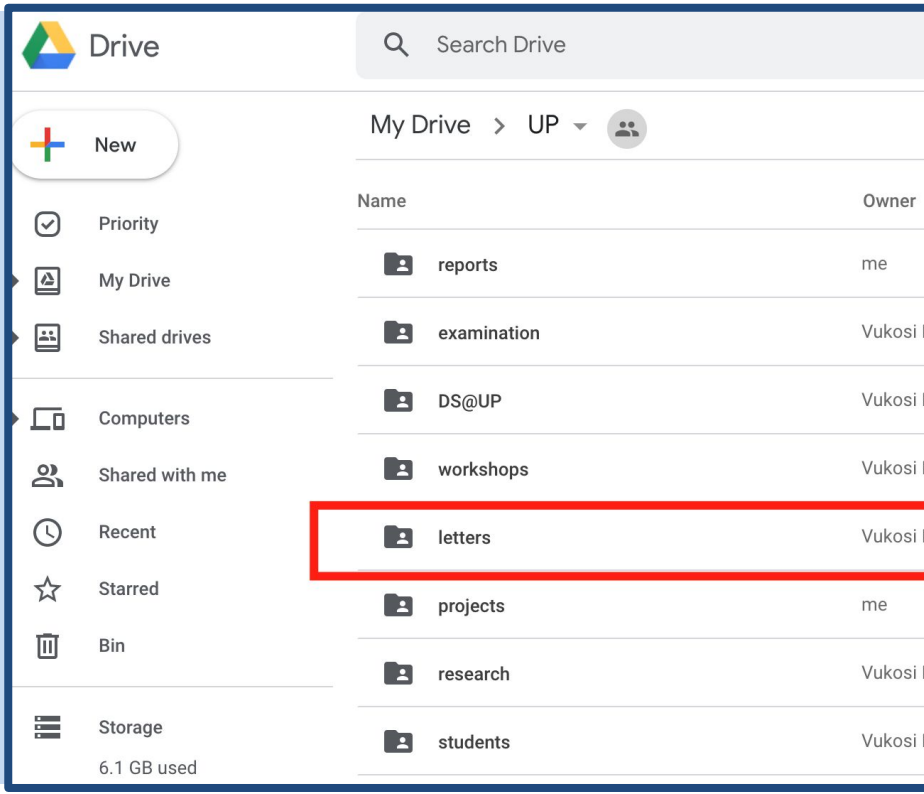
- Pass along opportunities
- Encourage them
- Follow up
- Build a culture of accountability

Apply for things with your students

- Build a culture of writing grants with your senior students.
- Ask for edits and comments on grant applications from your readers and students.

Write Letters

- Write good letters for your collaborators/students etc.
- They must be specific to the area and opportunity.



Make it eas

Prospective Post-Grad Guide

Data Science for Social Impact

Dr. Vukosi Marivate

A quick guide to us potentially working together

Last Update 5 September 2019

Data Science for Social Impact

https://dsfsi.github.io

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Applying: Things to Consider

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I found and opportunity, now what?

- Always Read the Instructions!!!!
- Check the due date.
- Give yourself time.

  “So much time! Do research, do drafts, share!”

I found and opportunity, now what?

- Do you know people who got the opportunity, contact them!!
- Gather all the documents needed.
- Get your letters early.

Documents

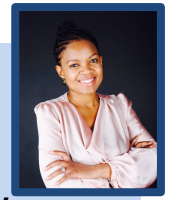
- Get your letters early
  - Reference Letters [***If you can check, do!!!!!!***]
    - Letters must be from relevant people.
    - Sometimes funders look out for you.
  - Letters of Support [People are always busy]
- Do you need a:
  - Statement of purpose
  - Research proposal
  - Personal statement
- Write, proofread, get a good reader.

A Good Reader?

Many readers in your life:

- Someone who has walked the path
- A good friend (that can give you honest feedback)
- A mentor
- A colleague

Budget and Budgeting



Budget for your funding

"Have an estimate of project budget needs: flights; accommodation; travel, project related budget needs (every single one of them), this helps funders know how much you need from them."

Budget for your life

- Treat stipends like income.
- Have a budget and calculate it on a specific Timeline (are your stipends for 12 months?)

Staying Compliant

- **Reporting**
- **Communicating setbacks**
- **Re-applying**

As long as you reapply understanding where you might have gone wrong, reapplying actually works in your favor. Committees tend to consider it. Just make sure it comes back repositioned and "stronger".

- **Asking for concessions [Worst they can say is NO]**

Other

Other Opportunities

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Remember

Apply! Apply! Apply!

Do not self-select!!!

Join the network

- MLDS Africa Network
- ~2000 members

https://groups.google.com/forum/#!forum/mlds-africa

Thank You & Questions

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Data Science for Social Impact

Scan me

It takes a village

PostDocs: *Loading*
PhD Students: *Abiodun Modupe*
Masters Students: *Jessica Nemasisi, Tshepiso Mokoena, Hombakazi Ngejane, Mario Naidoo*
MIT Big Data Science Students: *Henry Wandera, Avashlin Moodley, Nicolle Garber, Jeannette Shrutte*

Past Vac or Interns: *LeeAnne Masilela (Wits), Thandile Xiphu (UCT), Yanga Sisilana(NMMU), Katlego Mogokonyane (NWU), Nhlamulo Chauke (UL), Pelonomi Moiloa (Wits), Gary Bezeidenhout (Wits), Nkosinathi Ndlovu (Wits), Abel Letoaba (SMU), Komana Morris (UL), Kaveshan Naidoo (UNISA), Purity Molala (UL), Tlou Boloka (NWU), Theron Khosa (UJ), Nolihle Gulwa (WSU), Wandisa Mfenguza (UFH), Ndamulelo Nemakhavhani (UCT), Nombuso Zondo (UKZN), Thulani Memory Khumalo (UCT), Zimkhitha Sijovu (UFH), Thulani Pride Ngonyama (UP), Olwethu Madikwa (WSU), Louisa Sommerville (UP), Carel Chachi (SMU) and more.....*

Made with ❤️ in Tshwane

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