From climate science to automotive engineering
Or: Should I stay or should I go?

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Who am I?

- Born in Varna/Bulgaria
- Moved to Rostock/Germany at 3 years old
- Studied Physics
  - Quit in Göttingen and finished in Rostock
- Master’s degree (= Diplom)
- Went to SU in 2014 for a PhD in Atmospheric Physics
  - Thought: Why not?
- Main topic: Temperature Lidar studies of the Middle Atmosphere
- Left in 2019
- Started work as an Application Engineer in Stuttgart/Germany
- Company got bought and I moved to Gothenburg

- Cars!
Leaving University

If I stay:
• Sanity
  • Seen others struggle in similar situation: Funding ran out
• Do important research
  • Hard to convince myself
  • Hard grind
• Broke
• Family planning?
• Too old for jobs?
• Why am I doing this?

If I leave:
• Disappointment
  • Professor/Parents/Colleagues
• Risk
  • Jobs in Sweden?
    • Job search is soul-crushing
    • Lucky workaround through Germany
• Support of my (then) fiancé
• Off the Post-Doc treadmill
  • Making money
  • Got out before COVID
• Leaving my work behind
  • Who will continue?
• I can always return and finish
  • But I probably won’t

Basically: I know what it will take to finish my PhD, do I really want to do this?
Answer: NO
What do I do?

TestWeaver - Volvo Cars Case Study
TestWeaver used to find an example scenario that reproduces a rare defect seen in the real car

- 1 minute cycles focusing on engine speed, torque exploration and oscillations of the intake air mass flow and EGR control deviations
- Oscillation problems detected

Alarm! First alarm case identified after short time
About Synopsys

FY19 Revenue: ~$3.4B
Employees: >14,500
Patents: 3,300
Offices: ~130

#1 electronic design automation tools & services

Broadest IP portfolio and #1 interface, analog, embedded memories & physical IP

‘Leader’ in Gartner’s Magic Quadrant for application security testing

strong in Virtual Prototyping
Automotive (Virtual Prototyping)
Customers 2019
Lessons

• Nothing I do is as hard as what I did in University
  • PhD’s already have no work/life balance
  • Before: I’m stupid.
    • Impostor syndrome
  • Now, recognition: I know some things!
• Main skills I learned:
  • Confidence: learn quickly, identify what’s important
  • Python/MATLAB
  • Communication across departments
• PhD would make no difference to my (good) salary
  • Licentiate (lol) doubly so
• Working is fun (for me), but:
  • Tech industry different from others
  • Cars, new tech and big customers are cool
• Always remind yourself:
  • Nobody is irreplaceable, do what’s best for you
  • A-Kassa/Migrationsverket bureaucracy is horrible