Landing an Industry Position

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Me

- Computer science degrees at UVic, Toronto, McGill. Postdoc at Columbia and SFU.
- Structural graph theory (not really CS)
- Was looking for a faculty position.
- Currently an *Optimization Algorithms Researcher*: Lots of graph theory, combinatorics, Matlab, mixed with physics.
- Went from JGT to PRB.
D-Wave (we make quantum annealing processors)

- Emerged from UBC as a startup in 1999. Now located in Burnaby.
- Initial focus was on IP for quantum computing.
- 160 people in total; 15 in Software Applications.
- Research in Apps group covers optimization, machine learning, physics, discrete math, algorithms, etc.
The best resources at your disposal

The government wants Ph.D.s to succeed in industry

- NSERC Industrial R&D Fellowships **discontinued**
- NSERC Industrial Postgraduate Scholarships **discontinued**
- Mitacs Accelerate program
  - Internships for postdocs and grad students
  - Four months to two years
- Mitacs Elevate program
  - Two year research and professional development program
  - Requires postdoc supervisor and industrial partner
  - Awarded competitively 2x per year

Considerations

- Requires buy-in from both a company and an academic supervisor
- Limited to work with research value
- Industrial and academic partners need to reach consensus on IP
How to get an industry job in two easy simple steps

1. Be qualified
2. Make it obvious

Be qualified
▶ Programming is an overwhelming probability. Learn some Python.
▶ As a Mathematical Researcher™, your industry work will probably not be on your dissertation topic. That's ok!
▶ People want to hire someone with the ability to tackle new (and real) problems, warts and all.

Make it obvious
▶ Get onto GitHub, write a neat little program, and exhibit good coding practices.
▶ Make it clear in your application (and interview!) that you know something about the company, the position, and the problems.
▶ The usual CV building advice applies.
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Some things to work on

Everyone wants to hire someone who can... 

▶ Works well with others (nice to work with) 
▶ Works well independently (doesn’t need babysitting) 
▶ Can produce polished work (follow-through) 
▶ Is smart and gets things done 
▶ Is done and gets things smart (innovates, improves practices) 
▶ Can communicate complex ideas effectively

Showing these qualities **succinctly** will really help you.
How to find a job

1. Ask around
   ▶ Profs
   ▶ Former colleagues
   ▶ Current colleagues

2. Be around
   ▶ Job events ✓
   ▶ Mailing lists
   ▶ Seminars, colloquia, etc.

3. Look around
   ▶ Mathjobs.org, cra.org (comp sci)
   ▶ LinkedIn
   ▶ Indeed, etc.