Computer Science Graduate School
Is it For You?

Slides at http://inside.mines.edu/~whooff/
Why go to graduate school?

- Financial benefit
- Career fulfillment
- It’s easier now, rather than later
Financial benefit

- Starting salary for MS degree is more than $10,000 higher than for BS degree\(^1\)

- This difference persists over time\(^2,3,4\)

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\(^1\)Mines Career Center Annual Report, 2017-2018

\(^2\)https://study.com/articles/Salary_and_Career_INFO_for_a_Bachelors_Degree_in_Computer_Science.html

\(^3\)https://study.com/articles/Average_Salary_for_a_Masters_in_Computer_Science_Graduate.html

\(^4\)National Science Board, Science & Engineering Indicators 2018
## 2017-2018 Salary Data

- From Mines Career Center Annual Report

### Computer Science Summary Data

<table>
<thead>
<tr>
<th>Level</th>
<th># Grads</th>
<th>Industry</th>
<th>Military</th>
<th>Grad School</th>
<th>Intern’l</th>
<th>Not Looking</th>
<th>Outcomes</th>
<th>Seeking</th>
<th>Average Salary Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS - CS</td>
<td>83</td>
<td>57</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>3</td>
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<td>MS - CS</td>
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<td>0</td>
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<td>100%</td>
<td>0</td>
<td>$139,000</td>
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</table>
Career fulfillment

• More opportunities, more interesting jobs

• Make a difference
  – learn about the frontiers of knowledge in your field...
    ...and then expand them

• Address the many complex problems facing society
Doors Opened

• M.S. Degree
  – Technical positions with additional responsibilities
  – Deeper, more stimulating work
  – R&D positions

• Ph.D. Degree
  – Research-oriented positions in industry
  – Research-oriented positions at national labs
  – Teaching/research positions in academia
It’s easier now, rather than later

• If you enroll in the combined BS+MS program, you can get your MS degree in one additional year!

• We waive the requirement for the GRE exam & letters of rec for Mines grads

• IMO – it’s easier now rather than later, as you might have a house, family, etc
Cool courses and research
Practical questions

• How many credit hours are required?
  – MS degree: 30 credit hours
  – PhD degree: 72 credit hours (a mix of courses and research)

• How long does it take?
  – MS non-thesis: one year if in combined BS+MS
  – MS thesis: 1.5-2 years
  – PhD: 4-5 years (can get MS along the way)
Sample BS+MS Timeline

- Double count CSCI 406 and CSCI 442*
- Encouraged to apply before taking these courses

*Need B- or better in these
Practical questions

• Is there financial support?
  – For PhD students, teaching or research assistantships can cover tuition and pay a stipend
  – For MS students, possibility to teach courses

• Can MS students do research?
  – Yes! You can do a thesis or a “project” - these count for 6 credit hours
  – Or, do course work only
Application Info

• For BS+MS combined program
  – Apply after taking 5 CS courses* 
  – Minimum 3.2 GPA in CS courses*
    *200-level or higher, excluding 274, 370, 499

Priority Admission Deadlines

**Fall:** January 5
**Spring:** October 1

• PhD applicants should apply by Jan. 5 to receive priority consideration for Teaching Assistantships
Pre-Requisite Courses

• These foundational courses are essential!
  – CSCI 261: Programming Concepts
  – CSCI 262: Data Structures
  – CSCI 306: Software Engineering
  – CSCI 341: Computer Organization
  – CSCI 358: Discrete Mathematics
Find Out More!

Grad Program Info Session

Wednesday November 13, 4:00 in BB125

Alumni will be there to answer questions