BEng in Computer Science

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Academic Advisor

2020/21 Briefing
Computer science is not just about programming and studying the computers, but rather it is about **problem solving** – the study of algorithms and information representation to solve real-life problems.

“Almost every major challenge facing our world is **turning to computing for a solution**, from conquering disease to eliminating hunger, from improving education to protecting the environment.” by Prof. Eric Roberts of Stanford University, the co-Chair of ACM’s Education Board at 2007.
Programme Structure

- CS Professional Core
  - General Engg. Courses
  - CS Core Courses
  - CS Elective Courses
  - Final Year Project
  - Internship
  - UG5 Requirements
    - Chinese Course
    - English Courses
    - CC Courses

- 144 credits

- Flexibility
  - BEng(CompSc)
  - BEng(CompSc) + minor
  - BEng(CompSc) + 2 minors
  - BEng(CompSc) + 2nd major

- 42 credits

- 54 credits

- Free Electives
  - ≥ 42

- Minor
  - ≥ 36

- 2 Minors
  - 72 ≤ x < 96

- Double Degree
  - 54

- 2nd Major
  - 72 ≤ x < 96

- 144 credits

- 42 credits

- 54 credits
Minors & 2\textsuperscript{nd} majors

Minor
• Any minor \textit{except}
  • Minor in CS

2\textsuperscript{nd} Major
• Any major \textit{except}
  • Major in CS
  • Major with a total loading of 96 credits
    • E.g., Science Majors

Check this out: Academic Advising Office (http://aaol.hku.hk/)
Computer Science Focus Areas

**Theoretical Computer Science**
Compiler, Functional programming, Quantum computing, Game theory, Cryptography

**AI & Robotics**
A.I. Machine learning, Applied deep learning, Computer vision, Robotics

**Big Data Analytics**
Statistical learning, Adv DB, Data Mining, Bioinformatics

**Financial Computing**
Cyber security, Blockchain, Cryptocurrency, E-payment, ECommerce

**Systems & Networking**
Computer architecture, Web technologies, Mobile app design, Distributed computing, Scientific computing
Final Year Projects

- Research and development projects
- Industrial / community based projects
Internship
Career – 2019 Graduate Statistics

Where did our 2019 graduates go?

Basic Salary of HKUCS Graduates

[Charts showing distribution of employment outcomes and basic salary statistics for 2017, 2018, and 2019.]
## Career – Graduate Statistics

<table>
<thead>
<tr>
<th>Positions</th>
<th>IT-related positions</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>89%</td>
<td>11%</td>
</tr>
<tr>
<td>2018</td>
<td>85%</td>
<td>15%</td>
</tr>
</tbody>
</table>

### Examples
- Business/System/Technical/Technology Analyst
- Consultant/Application Consultant
- IT Officer/Specialist/Technician
- Programmer/Developer/Software Engineer
- IT/Cloud/System Engineer
- Android/Game/Mobile App Developer
- Research Assistant
- Web Developer
- Quantitative Researcher

- Graduate Trainee
- Program Coordinator
- Financial Consultant
- Manager
- Tutor
## Career – Graduate Statistics

<table>
<thead>
<tr>
<th></th>
<th>IT/Tech/Engg</th>
<th>Finance/Banking</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>45%</td>
<td>38%</td>
<td>17%</td>
</tr>
<tr>
<td>2018</td>
<td>58%</td>
<td>23%</td>
<td>19%</td>
</tr>
</tbody>
</table>

### Examples

- Accenture
- Alibaba
- Amazon
- ASM Pacific Technology Ltd
- ByteDance
- Google
- Huawei
- IBM China/Hong Kong
- Intel
- NetEase, Inc.
- PCCW Solutions
- Yahoo! Japan Corporation

- Bank of America Merrill Lynch
- BNP Paribas
- Credit Suisse Group AG
- Deloitte Touche Tohmatsu
- Goldman Sachs (Asia) LLC
- KPMG
- Manulife Financial
- Morgan Stanley
- UBS AG

- Hospital Authority
- South China Morning Post
- Cathay Pacific Airways Limited
- Citybus Ltd
- OGCIO
- HKU
Career – Useful References

• ACM Careers in Computing Website
  • http://computingcareers.acm.org/

• Target Jobs – IT and Technology
  • Specialisms:
    • https://targetjobs.co.uk/career-sectors/it-and-technology/advice/specialisms
  • Ten typical jobs graduates can do in IT:
    • https://targetjobs.co.uk/career-sectors/it-and-technology/advice/286189-ten-typical-jobs-graduates-can-do-in-it
Further information

• Academic Advisor of Computer Science department: Dr. Anthony Tam (atctam@cs.hku.hk).
• Computer Science program: http://www.cs.hku.hk/programme/
• To download this briefing note and study plans: https://www.cs.hku.hk/programmes/beng-compsc.academic-advising
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