BEng in Computer Science

Dr. Anthony Tam
Academic Advisor

2023/24 Briefing
What is Computer Science?

• 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

Flexibility

BEng(CompSc)

BEng(CompSc) + minor
   FE ≥ 36 credits

BEng(CompSc) + 2 minors
   72 credits ≤ FE < 90 credits

BEng(CompSc) + 2nd major
   72 credits ≤ FE < 90 credits

(GEBP)
BEng(CompSc) + BBA
   FE ≥ 54 credits
Minors & 2nd majors

Minor
- Any minor except
  - Minor in CS & DSE

2nd Major
- Any major except
  - Major in CS
  - A major with a total loading of 96 credits
    - E.g., Science Majors, QFin

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

Theoretical Computer Science
- Compiler, Functional programming, Quantum computing, Game theory, Cryptography, Advanced algorithm

AI & Robotics
- AI, Machine learning, Deep learning, Computer vision, Robotics, Hands-on AI

Big Data Analytics
- Statistical learning, AI, Machine learning, Adv DB, Data Mining, Bioinformatics

Cyber Security
- Cyber security, Cryptography, Cyber attack and defense, Digital forensics

Financial Computing
- Blockchain, Crypto-currency, E-payment, Ecommerce, Web technologies, Data mining

Systems & Networking
- Computer architecture, Web technologies, Mobile app design, Distributed computing, Scientific computing, Software systems
Internship

IBM, Baidu, Huawei, Tencent, Alibaba, ByteDance, DJI, Cathay Pacific, MTR Corporation, PwC, Bloomberg, OOCL, HSBC, JPMorgan Chase & Co., Bank of America Merrill Lynch, Morgan Stanley, Wells Fargo, Goldman Sachs, Hong Kong Monetary Authority, Manulife, Livi, Mox, Bowtie
FYP Project Awards

CS FYP Won Silver Award

MTR Travel Record and Coronavirus Analysis

2nd runner-up of 2022 Esri Young Scholars Award - Group Application
Career – Graduate Statistics

Where did our 2021 graduates go?

- Commerce & Industry: 54%
- Further Studies: 20%
- Civil Service: 4%
- Community, Social & Personal Services: 4%
- Educational Institutions: 3%
- No Response: 12%
- Not employed and others: 3%

Where did our 2022 graduates go?

- Commerce & Industry: 55%
- Further Studies: 13%
- Civil Service: 1%
- Community, Social & Personal Services: 5%
- Educational Institutions: 3%
- No Response: 20%
- Not employed and others: 3%
Further information

- Academic Advisor of Computer Science department: Dr. Anthony Tam (atctam@cs.hku.hk).
- To download this briefing note and study plans: [https://www.cs.hku.hk/programmes/beng-compsc/academic-advising](https://www.cs.hku.hk/programmes/beng-compsc/academic-advising)
- Or access this web page via the QR code

![QR Code Image]
More Information
Career – Graduate Statistics

Basic Salary of HKUCS Graduates

- **2020**
  - Min.: $13,000
  - Median: $15,000
  - Mean: $23,500
  - Max.: $62,500

- **2021**
  - Min.: $17,000
  - Median: $22,000
  - Mean: $25,000
  - Max.: $65,000

- **2022**
  - Min.: $17,000
  - Median: $25,000
  - Mean: $28,659
  - Max.: $60,000
# Career – Graduate Statistics

<table>
<thead>
<tr>
<th>Positions</th>
<th>IT-related positions</th>
<th>Others</th>
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<tbody>
<tr>
<td>2021</td>
<td>97%</td>
<td>3%</td>
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<tr>
<td>2022</td>
<td>90%</td>
<td>10%</td>
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</table>
| Examples  | IT/Data/Technical/Technology Analyst  
IT Officer/Specialist/Consultant  
Programmer/Developer/Software Engineer  
IT/Cloud/System Engineer  
Android/Game/Mobile App Developer  
Blockchain/Smart Contract Engineer  
UX Designer & Developer  
Web/Full Stack Developer  
Quantitative Researcher | Graduate/Management Trainee  
Business Development Manager  
Financial Consultant  
Officer  
Teacher |
# Career – Graduate Statistics

<table>
<thead>
<tr>
<th>Companies</th>
<th>IT/Tech/Engg</th>
<th>Finance/Banking</th>
<th>Others</th>
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<tbody>
<tr>
<td><strong>2021</strong></td>
<td>50%</td>
<td>35%</td>
<td>15%</td>
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<td><strong>2022</strong></td>
<td>47%</td>
<td>31%</td>
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<td><strong>Examples</strong></td>
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<td>Swire Group</td>
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Career – Useful References

• 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

• IT Career Paths
  • https://www.itcareerfinder.com/it-careers.html

• ACM Career and Job Center
  • https://jobs.acm.org/