

# Yutian Tang

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## Curriculum Vitae

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### Education

- 2013–2017 **Ph.D.**, *The Hong Kong Polytechnic University*, Hong Kong.  
Department of Computing
- 2009–2013 **Bachelor**, *Jilin University*, Changchun, P.R.China.  
Department of Computer Science and Technology

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### Working Experience

- 2017–Current **Research Associate**, *Department of Computing*, The Hong Kong Polytechnic University.  
Involve in RGC project with Hong Kong Government.
- Implements a crawler tool named *inappcrawler* for Google Play with Scrapy framework;
  - Decompiles and analyses the Google Service Framework with Apktool, dex2jar, and JD;
  - Project Demo and Output: <http://www.chrisyttang.org/android-instant-app/index.html>;
- 2014–2015 **Part-time Student Helper**, *Educational Development Centre*, The Hong Kong Polytechnic University.
- Enrol in course team for designing course material and present those online;
  - Develop the front-end webpage for the department;
    - Skill-set: HTML, CSS, JS, JQuery, Android, Java backend;
    - Tools: Android Studio, Dreamweaver;
    - Ability: Programming, problem solving, team work;

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### Publications

- 2017 **Yutian Tang**, Hareton Leung, "StiCProb: A Novel Feature Mining Approach Using Conditional Probability", *In Proceedings of 24th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)* pp 45-55.
- 2017 **Yutian Tang**, Hareton Leung, "Constructing Feature Model by Identifying Variability-aware Modules", *In Proceedings of 25th IEEE International Conference on Program Comprehension (ICPC)* pp 263-274.
- 2015 **Yutian Tang**, Hareton Leung, "Top-down Feature Mining Framework for Software Product Line", *In Proceedings of International Conference on Enterprise Information System (ICEIS)* pp 71-81.
- 2015 **Yutian Tang**, Hareton Leung, "Feature Mining for Product Line Construction", *In Proceedings of The First International Conference on Advances and Trends in Software Engineering* pp 29-33.

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## Professional Qualifications & Membership

- 2017 Member of ISACA
- 2017 Student Member of IEEE
- 2017 Student Member of Hong Kong Computer Society
- 2012 Intermediate Title of Software Engineer (China Qualification Certificate of Computer Science Technology Proficiency)

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## Projects and Tools

- 2017-curr **AndroidInstantApp**.
  - Hong Kong SAR government project under RGC entitled “Improving Mobile Users’ Privacy Decisions via Exposing Unexpected Sensitive Operations in Hardened Apps”;
  - Implement a crawler tool for scanning and downloading Instant App from Google Play with Scrapy framework and SQLite DB;
  - Skillset: Scrapy, SQLite, Python;
- 2016-2017 **TypeC**, *Eclipse plugin toolkit for conditional compilation with CDT*.
  - Rewrite the CDT parser for processing all possible configuration options with a single scanning;
  - Implement the analysis framework for understanding configuration and find valid configuration with a single iteration;
  - Skillset: Java, Eclipse CDT, plugin, C;
  - URL:<http://www.chrisyttang.org/typec/>
- 2016-2017 **LoongFMR**, *Eclipse plugin toolkit for product line architecture understanding with JDT*.
  - Implement the main framework, comparison approaches using graph optimisation, NLP, and static analysis;
  - Except the static analysis, architectures are extracted and presented;
  - Skillset: Java, Eclipse JDT, plugin;
  - URL:[http://www.chrisyttang.org/loong\\_fmr/](http://www.chrisyttang.org/loong_fmr/)
- 2015-2016 **Loong**, *Eclipse plugin toolkit for product line understanding with JDT*.
  - Implement the main framework and details for product line analysis;
  - Implement static analysis, including build the program database(AST based), control flow, data flow, points-to analysis;
  - Data extraction and analysis with R;
  - Skillset: Java, Eclipse JDT, plugin;
  - URL:<http://www.chrisyttang.org/loong/>
- 2015-2016 **Course project**, *P2P data sharing toolkit on Android*.
  - A course project, which aims at implementing a p2p data sharing;
  - Enable p2p chat, audio/video transformation/sharing over XMPP and SIP;
  - Skillset: Android, Socket;
  - Implement the data sharing module for text, video, and audio;

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## Skills

- OO Programming: Java, Python, C++, Android;
- Web: HTML, CSS, JS, JQuery, Java, Php;
- DB: MySQL, MongoDB;
- Framework: Eclipse (JDT, CDT), Soot, Boot, Eclipse plugin, Matlab;

- Android-related tools: Apktool, dex2jar, Robotium, Monkeyrunner;

## Teaching

- 2016–2017(1) **COMP3235**, *Software Project Management*, PolyU-Bachelor Degree Course, Department of Computing.
- 2016–2017(2) **COMP3233**, *Software Testing and Quality Assurance*, PolyU-Bachelor Degree Course, Department of Computing.
- 2015-2016(1) **COMP4911**, *Capstone Project*, PolyU-Bachelor Degree Course, Department of Computing.
- 2015-2016(2) **COMP3211**, *Software Engineering*, PolyU-Bachelor Degree Course, Department of Computing.
- 2014-2015 **COMP3235**, *Software Project Management*, PolyU-Bachelor Degree Course, Department of Computing.
- 2013-2014(1) **COMP309**, *System Programming*, PolyU-Bachelor Degree Course, Department of Computing.
- 2013-2014(2) **COMP322**, *Enterprise Information Systems Project Implementation*, PolyU-Bachelor Degree Course, Department of Computing.

## Referees

- Dr. Hareton Leung, Associate Professor, Email: [cshleung@comp.polyu.edu.hk](mailto:cshleung@comp.polyu.edu.hk);
- Dr. Ting Chen, Associate Professor, Email: [brokendragon@uestc.edu.cn](mailto:brokendragon@uestc.edu.cn);
- Dr. Liu Yan Wang, Dennis, Teaching Fellow, Email: [csdennis@comp.polyu.edu.hk](mailto:csdennis@comp.polyu.edu.hk)