

# Ei Pa Pa Pe Than

## Coordinates

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## Education

2017–2020 Carnegie Mellon University, Pittsburgh, PA, USA.

### **Postdoctoral Research Fellow**

**Research:** Large scale collaboration and coordination in time-bounded events (hackathons, datathons, etc.) for science, innovation, learning, and community building, and collaborative writing on GitHub.com. Empirical, case study research approach is used to address complex socio-technical questions employing ethnography (interviews and observations), archival analysis (quantitative collection and analysis of logs and trace data with Python, R, and Dedoose), and a combination of all of these methods (mixed- methods) as relevant.

**Advisor:** James D. Herbsleb, Professor, School of Computer Science and Head, Software and Societal Systems Department, Carnegie Mellon University, USA.

2010–2016 Nanyang Technological University (NTU), Singapore.

### **Ph.D.**

**Dissertation:** Investigating User-centered Human Computation Games: The Roles of Perceived Enjoyment and Its Antecedents

**Advisor:** Dion Hoe-Lian Goh, Professor and Associate Chair (Graduate and Continuing Education), Wee Kim Wee School of Communication and Information, NTU, Singapore.

**Co-advisor:** Chei Sian Lee, Associate Professor and Associate Chair (Faculty), Wee Kim Wee School of Communication and Information, NTU, Singapore.

2008–2009 Nanyang Technological University, Singapore.

### **M.Sc. (Information Systems)**

2001–2005 University of Computer Studies, Yangon, Myanmar.

### **B.C.Sc (Computer Science) (Hons.)**

## Employment Experience

- 2017–2020 **Software and Societal Systems Department** (formerly Institute for Software Research), **School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, USA.**  
Postdoctoral Research Fellow  
Research: Large scale collaboration and coordination in time-bounded events (hackathons, datathons, etc.) for science, innovation, learning, and community building, and collaborative writing on GitHub.com. Empirical, case study research approach is used to address complex socio-technical questions employing ethnography (interviews and observations), archival analysis (quantitative collection and analysis of logs and trace data with Python, R, and Dedoose), and a combination of all of these methods (mixed- methods) as relevant.  
Advisor: James D. Herbsleb, Professor, School of Computer Science and Head, Software and Societal Systems Department, Carnegie Mellon University, USA.
- 2012–2016 **Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore.**  
Research Associate (2015–2016)  
Research: Investigate the motivations, uses, and perceptions differences between game and non-game applications for music tagging preloaded on mobile devices and situated public displays  
Advisor: Dion Hoe-Lian Goh, Professor and Associate Chair (Graduate and Continuing Education), Wee Kim Wee School of Communication and Information, NTU, Singapore.  
Adjunct Lecturer (2015–2016)  
Teaching Assistant (2012–2014)
- 2009–2010 **NCS Pte Ltd (formerly National Computer Systems), Singapore.**  
Applications Consultant  
Project: Maintenance and enhancement of a web-based outpatient administrative system (OAS) developed with Microsoft .NET Framework and SQL server and deployed in a network of hospitals, speciality centers and polyclinics managed by Singapore Health Services (SingHealth) under Ministry of Health Singapore. My main responsibilities include monitoring of the daily transactions and batch processing of OAS's accounting module, liaising with the hospital's finance department, management of change requests, system migration, and on-site visits.
- 2005–2007 **University of Computer Studies, Yangon, Myanmar.**  
Trainee tutor

## Publications

### Peer-Reviewed Journals

1. Pe-Than, E.P.P., Nolte, A., Filippova, A., Bird, C., Scallen, S., & Herbsleb, J.D. (2022). Corporate hackathons, how and why? A multiple case study of motivation, projects proposal and selection, goal setting, coordination, and outcomes. *Human–Computer Interaction*, 37, 281–313. ([doi](#) | [pdf](#))
2. Pe-Than, E.P.P., Dabbish, L., and Herbsleb, J.D. (2021). Open Collaborative Writing: Investigation of the Fork-and-Pull Model. In *Proceedings of the ACM on Human Computer Interaction*, 5 (CSCW1), Article 137 (April 2021), pp. 1–33. ([doi](#) | [pdf](#))
3. Pe-Than, E.P.P., Nolte, A., Filippova, A., Bird, C., Scallen, S., and Herbsleb, J.D. (2018). Designing Corporate Hackathons with a Purpose. *IEEE Software*, 36 (1), 15–22. ([doi](#) | [pdf](#)) (**Runner-up for the 2019 Best Paper Award by IEEE Computer Society Publication Board**)
4. Pe-Than, E.P.P., Goh, D.H.-L. and Lee, C.S. (2017). Does it matter how you play? The effects of collaboration and competition among players of human computation games. *Journal of the Association for Information Science and Technology*, 68, 1823–1835. ([doi](#) | [pdf](#))
5. Pe-Than, E. P. P., Goh, D. H-L, and Lee, C.S. (2015) A typology of human computation games: an analysis and a review of current games. *Behaviour & Information Technology*, 34 (8), 809–824. ([doi](#) | [pdf](#))
6. Pe-Than, E.P.P., Goh, D.H-L, and Lee, C.S. (2014). Making work fun. *Computers in Human Behavior*, 39 (C), 88–99. ([doi](#) | [pdf](#))
7. Goh, D. H-L, Pe-Than, E. P. P., and Lee, C. S. (2017). Perceptions of virtual reward systems in crowdsourcing games. *Computers in Human Behavior*, Volume 70 (May 2017), 365–374. ([doi](#) | [pdf](#))

### Peer-Reviewed Conferences

8. Pe-Than, E.P.P. and Herbsleb, J.D. (2019). Understanding Hackathons for Science: Collaboration, Affordances, and Outcomes. In: Taylor, N., Christian-Lamb, C., Martin, M., Nardi, B. (eds) *Information in Contemporary Society. iConference 2019. Lecture Notes in Computer Science*, vol 11420, pp. 27–37. Springer, Cham. ([doi](#) | [pdf](#))
9. Nolte, A., Pe-Than, E.P.P., Filippova, A., Bird, C., Scallen, S., and Herbsleb, J.D. (2018). You Hacked and Now What?: - Exploring Outcomes of a Corporate Hackathon. In *Proceedings of the ACM on Human Computer Interaction*, 2 (CSCW'18), Article 129, 23 pages. ([doi](#) | [pdf](#))
10. Pe-Than, E.P.P., Dabbish, L., and Herbsleb, J.D. (2018). Collaborative Writing on GitHub: A Case Study of a Book Project. In *Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW'18)*, pp. 305–308. ([doi](#) | [pdf](#) | [poster](#))
11. Pe-Than, E.P.P., Herbsleb, J.D., Nolte, A., Gerber, E., Fiore-Gartland, B., Chapman, B., Moser, A., and Wilkins-Diehr, N. (2018). The 2nd Workshop on Hacking and Making at Time-Bounded Events: Current Trends and Next Steps in Research and Event Design. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA'18)*, paper W35, 8 pages. ([doi](#) | [pdf](#) | [website](#))
12. Pe-Than, E.P.P., Goh, D.H.L., Lee, C.S. (2012). Enjoyment of a Mobile Information Sharing Game: Perspectives from Needs Satisfaction and Information Quality. In: Chen, HH., Chowdhury, G.

(eds) *The Outreach of Digital Libraries: A Globalized Resource Network. ICADL 2012. Lecture Notes in Computer Science, vol 7634*, pp 126–135. Springer, Berlin, Heidelberg. ([doi](#) | [pdf](#))

## Technical reports

13. Pe-Than, E.P.P., and Nolte, A. (2018). The 2nd Workshop on Hacking and Making at Time-Bounded Events. *Technical Report CMU-ISR-18-109*, Carnegie Mellon University. ([pdf](#) | [website](#))

## Posters

14. Pe-Than, E.P.P., Dabbish, L., and Herbsleb, J.D. (2019). Collaborative Writing at Scale: A Case Study of Two Open-Text Projects Done on GitHub. *Presented at the annual meeting of Human Computer Interaction Consortium (HCIC'19): The Future of Work*, June 23–27, Pajaro Dunes, Watsonville, CA, USA. ([pdf](#) | [website](#))
15. Pe-Than, E.P.P., Dabbish, L., and Herbsleb, J.D. (2019). Collaborative Writing at Scale: A Case Study of Two Open-Text Projects Done on GitHub. *Presented at the 7th ACM Conference on Collective Intelligence 2019 (CI'19)*, June 13–14, Pittsburgh, PA, USA. ([link](#) | [pdf](#) | [website](#))
16. Pe-Than, E.P.P., Momcheva, I., Tolleud, E., and Herbsleb, J.D. (2019). Hackathons for Science, How and Why? *Presented at the 233rd Meeting of the American Astronomical Society, AAS Meeting #233*, id.459.11, January 6–10, Seattle, Washington, USA. ([link](#) | [pdf](#) | [website](#))
17. Powell, J., Hayden, L., Nolte, A., Herbsleb, J.D., Pe-Than, E.P.P., Wong, M., Kalyanam, R., Ellet, K., Pamidighantam, S., Traxler, K., and Cannon, A. (2018). An Analysis of the PEARC 2018 Science Gateways Community Institute Hackathon: Lessons Learned. *Presented at Gateways 2018 organized by the Science Gateways Community Institute (SGCI)*, July 22–26, Pittsburgh, PA, USA. ([doi](#) | [pdf](#) | [website](#))
18. Pe-Than, E.P.P., Nolte, A., Filippova, A., Bird, C., Scallen, S. and Herbsleb, J.D. (2018). An Empirical Study of Team Familiarity, Goal Setting, and Process in Time-Bounded Events. *Presented at the 13th Annual Interdisciplinary Network for Group Research Conference (INGroup'18)*, July 18–21, Bethesda, Washington DC, USA. ([website](#))

## Selected other papers

19. Alexander Nolte, Ei Pa Pa Pe-Than, Abasi-amefon Obot Affia, Chalalai Chaihirunkarn, Anna Filippova, Arun Kalyanasundaram, Maria Angelica Medina Angarita, Erik Trainer, and James D. Herbsleb. (2020). How to organize a hackathon -- A planning kit. ([doi](#) | [link](#) | [pdf](#) | [planning-kit](#))

## Presentations

20. Pe-Than, E.P.P., Goh, D.H.-L. and Lee, C.S. (2017), Does it matter how you play? The effects of collaboration and competition among players of human computation games. *Journal of the Association for Information Science and Technology*, 68, 1823–1835. Presented at the 66th annual conference of the International Communication Association (ICA), June 9–13 2016, Fukuoka, Japan. ([doi](#) | [pdf](#) | [link](#) | [website](#))
21. Pe-Than, E.P.P., Nolte, A., Filippova, A., Bird, C., Scallen, S., and Herbsleb, J.D. (2018). Designing Corporate Hackathons with a Purpose. *IEEE Software*, 36 (1), 15–22. Presented as journal first paper at the 27th ACM Joint European Software Engineering Conference and Symposium on

*the Foundations of Software Engineering (ESEC/FSE), August 26–30 2019, Tallinn, Estonia. ([doi](#) | [pdf](#) | [slides](#) | [website](#))*

## Teaching

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|---------------------------|--|--|
| <b>Instructor</b>         | <b>Nanyang Technological University, Singapore.</b>                                  |  |
| 2016 Aug                  | CI6221   | Information Visualization (cross-listed)                       |
| 2016 Jan                  | CI6228   | Managing Information Systems (graduate)                        |
| 2015 Jan                  | IN9008   | Digital Social Games for Organizations (undergraduate)         |
| <b>Teaching assistant</b> | <b>Nanyang Technological University, Singapore.</b>                                  |  |
| 2014 Jan                  | IN9006   | Social Computing and Applications (graduate)                   |
| 2013 Aug                  | CS2008   | Fundamentals of Research (undergraduate)                       |
| 2013 Jan                  | CI6208   | Research Methods and Data Analysis for Professional (graduate) |
| 2012 Aug                  | CI6222   | Mobile & Ubiquitous Applications (graduate)                    |
| <b>Trainee tutor</b>      | <b>University of Computer Studies, Yangon, Myanmar.</b>                              |  |
| 2006-2007                 | Fundamentals of Data Structures (undergraduate)<br>Operating Systems (undergraduate) |  |

## Awards

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- NTU Research Scholarship (August 2010–July 2014)
- NCS Service Excellence Award (NCS Singapore Health Services) (May 10, 2010)
- Runner-up for the 2019 Best Paper Award by IEEE Computer Society Publication Board ([paper](#))

## Professional Activities

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Reviewer, ACM Conference on Computer-Human Interaction ([CHI](#))

Reviewer, ACM Conference on Computer-Supported Cooperative Work ([CSCW](#))

Reviewer, [iConference](#)

Reviewer, European Conference on Information Systems ([ECIS](#))

Reviewer, International Conference on Asian Digital Libraries ([ICADL](#))

Co-organizer, A series of internal hackathons with Hubble Space Telescope team at the Space Telescope Science Institute ([STScI](#)), Baltimore, MD, USA (2018–2019)

Co-organizer, World of Code (WoC) Hackathon, Carnegie Mellon University, Pittsburgh, PA, USA (November 1–3, 2019) ([website](#))

Co-organizer, Science Gateways Hackathon by the Science Gateways Community Institute (SGCI), collocated with PEARC18 Conference, Wyndham Grand Pittsburgh, PA, USA (July 23–27, 2018) ([website](#))

Co-organizer, The 2nd Workshop on Hacking and Making at Time-Bounded Events: Current Trends and Next Steps in Research and Event Design, ACM CHI'18 conference, Montreal, Canada (April 22, 2018) ([website](#) | [tech-report](#))

Student volunteer, CMU's School of Computer Science's 2020 Presidential Election's Voting Study Committee (2020)

Student volunteer, The 66th Annual Conference of the International Communication Association (ICA), Fukuoka, Japan (June 9–13, 2016)

Student volunteer, Graduate Admission Exercise of Wee Kim Wee School of Communication and Information (2011–2013)

Student volunteer, International Conference on Social Informatics (SocInfo 2011), Singapore Management University, Singapore (October 6–8, 2011)

Member, Association for Computing Machinery

## References

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### **James Herbsleb**

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### **Laura Dabbish**

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### **Alexander Nolte**

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