

Ei Pa Pa Pe Than

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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 ([url](#) | [doi](#))

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, features development, 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. (2017). Analyzing Crowdsourced Mobile Content: Do Games Make a Difference? *Journal of Information Science Theory & Practice (JISTaP)*, 5 (2), 6–16. ([doi](#) | [pdf](#))
6. 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](#))
7. Pe-Than, E.P.P., Goh, D.H.-L. and Lee, C.S. (2015). Why do people play human computation games? Effects of perceived enjoyment and perceived output quality. *Aslib Journal of Information Management*, 67 (5), pp. 592–612. ([doi](#))
8. 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](#))
9. Pe-Than, E.P.P., Goh, D.H-L, and Lee, C.S. (2014). Making work fun: Investigating antecedents of perceived enjoyment in human computation games for information sharing. *Computers in Human Behavior*, 39 (C), 88–99. ([doi](#) | [pdf](#))

Peer-Reviewed Conferences

10. 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](#))
11. 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](#))
12. 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](#))

13. 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](#))
14. Pe-Than, E.P.P., Goh, D.H.-L., Lee, C.S. (2017). Motivational Difference Across Gameplay Mechanics: An Investigation in Crowdsourcing Mobile Content. In: Choemprayong, S., Crestani, F., Cunningham, S. (eds.) *Digital Libraries: Data, Information, and Knowledge for Digital Lives (ICADL 2017), Lecture Notes in Computer Science, vol 10647*. Springer, Cham. ([doi](#))
15. Goh, D. H.-L., Pe-Than, E. P. P., Lee, C. S. and Chua, A.Y.K. (2017). Do games make a difference in the crowdsourcing of mobile content?. In S. Erdelez & N.K. Agarwal (eds.), *Proceedings of the Association for Information Science and Technology*, 54 (1), pp. 119–127. Wiley, Hoboken, NJ, USA. ([doi](#))
16. Goh, D. H.-L, Pe-Than, E.P.P., and Lee, C.S. (2016). Games for Crowdsourcing Mobile Content: An Analysis of Contribution Patterns. In *Proceedings of the 16th ACM/IEEE-CS on Joint Conference on Digital Libraries (JCDL'16)*, pp. 249–250. ACM, New York, NY, USA. ([doi](#))
17. Pe-Than, E.P.P., Goh, D.H.-L. and Lee, C.S. (2016). Personality, motivations, and information quality: A comparative study across games for human computation. In *Proceedings of the Association for Information Science and Technology (ASIS&T)*, 53 (1), pp. 1-10. ([doi](#))
18. Goh, D.H.-L., Pe-Than, E.P.P. and Lee, C.S. (2016), Crowdsourcing mobile content through games: An analysis of contribution patterns. In *Proceedings of the Association for Information Science and Technology (ASIS&T)*, 53 (1), pp. 1–10. ([doi](#))
19. Goh, D.HL., Pe-Than, E.P.P., Lee, C.S. (2015). An Investigation of Reward Systems in Human Computation Games. In: Kurosu, M. (eds) *Human-Computer Interaction: Interaction Technologies (HCI 2015), Lecture Notes in Computer Science, vol 9170*, pp. 596–607. Springer, Cham. ([doi](#))
20. Pe-Than, E.P.P., Goh, D.HL., Lee, C.S. (2015). The Effects of Collaboration and Competition on Players' Perceptions in Human Computation Games. In: Allen, R., Hunter, J., Zeng, M. (eds.) *Digital Libraries: Providing Quality Information (ICADL 2015), Lecture Notes in Computer Science, vol 9469*, pp. 246–251 Springer, Cham. ([doi](#))
21. Goh, D.HL., Pe-Than, E.P.P., Lee, C.S. (2015). Investigating the Antecedents of Playing Games for Crowdsourcing Location-based Content. In: Allen, R., Hunter, J., Zeng, M. (eds.) *Digital Libraries: Providing Quality Information (ICADL 2015), Lecture Notes in Computer Science, vol 9469*, pp. 52–63 Springer, Cham. ([doi](#))
22. Pe-Than, E.P.P., Goh, D.HL., Lee, C.S. (2013). Playing Human Computation Games for Mobile Information Sharing: The Influence of Personality and Perceived Information Quality. In: Urs, S.R., Na, JC., Buchanan, G. (eds.) *Digital Libraries: Social Media and Community Networks (ICADL 2013), Lecture Notes in Computer Science, vol 8279*, pp. 147–156. Springer, Cham. ([doi](#))
23. Pe-Than, E.P.P., Goh, D.HL., 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: the 14the International Conference on Asian Digital Libraries (ICADL 2012), Lecture Notes in Computer Science, vol 7634*, pp. 126–135. Springer, Berlin, Heidelberg. ([doi](#))

24. Pe-Than, E.P.P., Goh, D. H.-L., and Lee, C.S. (2010). A Survey and Typology of Human Computation Games. In *Proceedings of the 2012 Ninth International Conference on Information Technology - New Generations (ITNG)*, pp. 720–725. IEEE. ([doi](#))

Technical reports

25. 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

26. 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](#))
27. 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. ([url](#) | [pdf](#) | [website](#))
28. 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. ([url](#) | [pdf](#) | [website](#))
29. 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](#))
30. 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

31. 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](#) | [url](#) | [pdf](#) | [planning-kit](#))

Presentations

32. 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](#) | [url](#) | [website](#))
33. 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](#) | [url](#) | [slides](#) | [website](#))

Teaching

Instructor	Nanyang Technological University, Singapore.	
2016 Aug	CI6221	Information Visualization (cross-listed)
2016 Jan	CI6228	Managing Information Systems (graduate)
2015 Jan	IN9008	Digital Social Games for Organizations (undergraduate)
Teaching assistant	Nanyang Technological University, Singapore.	
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)
Trainee tutor	University of Computer Studies, Yangon, Myanmar.	
2006-2007		Fundamentals of Data Structures (undergraduate) Operating Systems (undergraduate)

Awards

- 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 ([doi](#) | [pdf](#))

Professional Activities

Reviewer

ACM Conference on Computer-Human Interaction ([CHI](#)); ACM Conference on Computer-Supported Cooperative Work ([CSCW](#)); [iConference](#); European Conference on Information Systems ([ECIS](#)); 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)
- World of Code (WoC) Hackathon, Carnegie Mellon University, Pittsburgh, PA, USA (November 1–3, 2019) ([website](#))
- Science Gateways Hackathon by the Science Gateways Community Institute (SGCI), collocated with PEARC18 Conference, Wyndham Grand Pittsburgh, PA, USA (July 23–27, 2018) ([website](#))

- 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](#) | [report](#))

Volunteer

- CMU's School of Computer Science's 2020 Presidential Election's Voting Study Committee (2020)
- The 66th Annual Conference of the International Communication Association (ICA), Fukuoka, Japan (June 9–13, 2016) ([website](#))
- Graduate Admission Exercise of Wee Kim Wee School of Communication and Information (2011–2013)
- International Conference on Social Informatics (SocInfo 2011), Singapore Management University, Singapore (October 6–8, 2011)

Member

- Association for Computing Machinery (ACM)

References

James Herbsleb

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Head, Software and Societal Systems Department
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Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213
United States of America

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Laura Dabbish

Professor, Human-Computer Interaction Institute and Heinz College
School of Computer Science
Newell-Simon Hall 3605
Carnegie Mellon University
5000 Forbes Avenue
Pittsburgh, PA 15213
United States of America

phone: +1 (412) 268-5347
email: dabbish [at] cmu.edu
website: <https://www.lauradabbish.com>

Alexander Nolte

Assistant Professor, Software Engineering and Technology Cluster
MetaForum 6.096
Eindhoven University of Technology
5612 AZ Eindhoven
The Netherlands

email: a.u.nolte [at] tue.nl
website: <https://alexandernolte.github.io>