

PERSONAL DATA



Name : Asst.Prof.Dr. AZIZ NANTHAAMORNPHONG

Position : Assistant Professor

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EDUCATION

Ph.D. Degree	2014	Computer Science (Ph.D.), The University of Alabama, USA
Master Degree	2002	Information Technology (M.Sc.), Kasetsart University, Bangkok, Thailand
Bachelor Degree	1999	Industrial Engineering (B.Eng.), Thammasat University, Bangkok, Thailand

RESEARCH INTERESTS

I am particularly interested in data science in software engineering, including software analytics, data analytics in open source software, social analytics. I also do research on software engineering practices in scientific software development. For example, agile methods, test-driven development, design patterns. My research extends to empirical software engineering, software quality, software maintenance, software development process, software architecture, and reverse engineering.


Data Science in Software Engineering



Empirical Software Engineering



Software Quality



Agile Methodologies

RESEARCH PROJECTS

Marketing Channel Development for Wellness Spa in Southern Thailand

Aziz Nanthaamornhong, <http://southernspa.info/home/login>

City Data Platform (CDP) - Phuket Smarty City Platform

Co-working with City Data Analytics Co., Ltd. and Digital Economy Promotion Agency (depa)

ForUML – Extraction the UML diagrams from Modern FORTRAN.

Nanthaamornphong, A., Carver, J., Morris, K., & Filippone, S. (2015). *Extracting UML class diagrams from object-oriented Fortran: ForUML Scientific Programming*, 2015

Nanthaamornphong, A., & Leatongkam, A. (2017). *Modern Fortran Transformation Rules for UML Sequence Diagrams*. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 9(3-4), 131-136.

Squirrel – The code snippet repository system

Nanthaamornphong, A., Pomwong, S., Klebkaew, K., & Jindamanee, N. (2017). *Squirrel: A Code Snippet Repository*. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, 9(3-3), 73-77.

OSS Analytic – Analyze the code smell in OSS projects

Nanthaamornphong, A., & Chaisutanon, A. (2016, September). *Empirical evaluation of code smells in open source projects: preliminary results*. In *Proceedings of the 1st International Workshop on Software Refactoring* (pp. 5-8). ACM.

ZSmell – The code smell detection tool integrated with GitHub

[Research Projects](#)

APPOINTMENT

Vice-Dean of Research, Post-Graduate, and Academic Services (June 2018 - Present)

Chair of Master of Science in Information Technology Degree Program (May 2014 - 17 October 2018)

TEACHING

Lecturer

- **Service Oriented Architecture** (Undergraduate level) - 2018 (1st semester)
- **R Programming** (Graduate level) - 2018 (2nd semester)
- **Statistics for Information Technology** (Graduate level) - 2015 (1st semester), 2016 (1st semester), 2017 (1st semester)
- **Advanced Empirical Software Engineering** (Graduate level) - 2015 (2nd semester), 2016 (2nd semester)
- **Software Construction and Maintenance** (Undergraduate level) - 2014 (1st semester), 2015 (1st semester), 2016 (1st semester)
- **Advanced Object-Oriented Programming** (Undergraduate level) - 2014 (2nd semester), 2015 (2nd semester)
- **Software Architecture** (Undergraduate level) - 2014 (2nd semester), 2016 (2nd semester)
- **Component-Based Software Development** (Undergraduate level) - 2014 (2nd semester), 2017 (1st semester)

Guest Lecturer

- **Software Quality Assurance** (Undergraduate level) - 2009 (1st semester)
- **Object-Oriented Analysis and Design** (Undergraduate level) - 2007 (1st semester) 2008 (1st semester)
- **Software Architecture** (Undergraduate level) - 2007 (2nd semester), 2008 (2nd semester)

PhD Student

- Kulsiri Jirayoot (□5/2019)

Master Students

- Apatta Chaisutanon (graduated 5/2017)
- Suchada Pongphom (graduated 5/2017)
- Thanyarat Kitpanich (graduated 7/2018)
- Anawat Leatongkam (graduate 7/2018)

INTERNATIONAL JOURNAL ARTICLES

Aziz Nanthaamornphong, Tanawat Saeang and Panyaprach Tularak, "Zsmell – Code Smell Detection for Open Source Software," *International Journal on Advanced Science, Engineering and Information Technology*, vol. 10, no. 3, pp. 1035-1041, 2020. [Scopus indexed]

📅 6/2020

Aziz Nanthaamornphong and Anawat Laetongkam, Extended ForUML for Automatic Generation of UML Sequence Diagrams from Object-Oriented Fortran, *Scientific Programming*, Article Id:2542686, 22 pages [ISI Indexed]

📅 2/2019

Aziz Nanthaamornphong and Stephane Bressan, The empirical study: Encouraging students' interest in software development using test-driven-development, *Technicki glasnik/Technical Journal*, Vol.13, No. 4 [ISI indexed]

📅 12/2019

Aziz Nanthaamornphong and Jeffrey Carver, Test-Driven Development in HPC Science: A Case Study, *Computing in Science and Engineering*, vol. 20, no. 5, pp. 98-113, 2018. [ISI indexed]

📅 9/2018 🌐 cise

Aziz Nanthaamornphong and Rattana Wetprasit, Methods to measure the impact of design patterns on software maintainability, *Maejo International Journal of Science and Technology*, vol. 12, no.3, pp.251-271 [ISI Indexed]

📅 11/2018

Aziz Nanthaamornphong, Saknarong Pomwong, Kwanrudee Klebkaew, and Napawan Jindamanee, Squirrel: A Code Snippet Repository, *Journal of Telecommunication, Electronic and Computer Engineering*, vol.9, no.3-3, pp.73-77 [Scopus Indexed]

📅 12/2017

Aziz Nanthaamornphong and Anawat Leatongkam, Modern Fortran Transformation Rules for UML Sequence Diagrams, *Journal of Telecommunication, Electronic and Computer Engineering*, vol.9, no.3-4, pp.131-136 [Scopus Indexed]

📅 12/2017

Aziz Nanthaamornphong and Thanyarat Kitpanich, The Study of Code Reviews based on Software Maintainability in Open Source Projects, *Journal of Telecommunication, Electronic and Computer Engineering*, vol.9, no.3-4, pp.123-129 [Scopus indexed]

12/2017

Aziz Nanthaamornphong and Jeffrey Carver, Test-Driven Development in scientific software: a survey, Software Quality Journal, vol.25, issue 2, pp.343-372 [ISI indexed]

6/2017 SQJ

Jonathan Krein, Lutz Prechelt, Natalia Juristo, **Aziz Nanthaamornphong**, Jeffrey Carver, Sira Vegas, Charles Knutson, Kevin Seppi, Dennis Eggett, A Multi-Site Joint Replication of a Design Patterns Experiment Using Moderator Variables to Generalize across Contexts, IEEE Transactions on Software Engineering, vol.42, no.4, pp. 302-321 [ISI indexed]

4/2016

Aziz Nanthaamornphong and Rattana Wetprasit, Evaluation of the Visitor Pattern to Promote Software Design Simplicity, Jurnal Teknologi, vol. 77, no. 9, pp. 61-77 [Scopus indexed]

10/2015

Aziz Nanthaamornphong, Jeffrey Carver, Karla Morris, and Salvatore Filippone, Extracting UML Class Diagrams from Object-Oriented Fortran: ForUML, Scientific Programming, vol. 2015, Article ID 421816, 15 pages [ISI indexed]

6/2015

Aziz Nanthaamornphong, Jeffrey Carver, Karla Morris, Hope A. Michelsen, Damian W. I. Rouson, Building CLiIME via Test-Driven Development: A Case Study, Computing in Science & Engineering, vol.16, no. 3, pp. 36-46 [ISI indexed]

1/2014 cise

NATIONAL JOURNAL ARTICLES

Anawat Leatongkam and **Aziz Nanthaamornphong**, Towards Extraction of UML Sequence Diagrams from Modern Fortran, Information Technology Journal, Vol.15, No.1, pp. 9-21, 2019 [Asean Citation indexed]

/2019

INTERNATIONAL PROCEEDINGS

Nor Razak, Aida Mustapha, **Aziz Nanthaamornphong**, Mohd Helmy Abd Wahab, and Salama Mostafa, Prediction of Secondary Students Performance: A Case Study, Proceedings of the 18th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), June 2021, pp.908-912

5/2021

Azrel Aiman Azeman, Aida Mustapha, Nazim Razali, **Aziz Nanthaamornphong**, Mohd Helmy Abd Wahab, Prediction of Football Matches Results: Decision Forest against Neural Networks, proceedings of the 18th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), June 2021, pp.1032-1035

5/2021

Kulsiri Chirayus, **Aziz Nanthaamornphong**, A Systematic Mapping Review: Mobile User Interface Design Guidelines for the Elderly with Cognitive Impairments, The 23rd International Computer Science and Engineering Conference (ICSEC 2019), Phuket, Thailand, June 2019, pp. 35-42.

1/2020

Kulsiri Chirayus and **Aziz Nanthaamornphong**, Cognitive Mobile Design Guidelines for the Elderly: A Preliminary Study, in proceedings of the 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), Virtual Event, August 2020, pp. 673- 678

 8/2020

Aziz Nanthaamornphong, Jeffrey Holmes, and Pracha Asawateera, A Case Study: Phuket City Data Platform, proceedings of the 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), Virtual Event, August 2020, pp. 717-722

 8/2020

Hajer Kafi, **Aziz Nanthaamornphong**, Stephane Bressan, Determinants of Social Networking Usage and Regret in Two Cultural Settings: France and Thailand, The Americas Conference on Information Systems 2019 (AMCIS 2019), 15-17 August 2019, Cancún, Mexico, pp. 1-10

 8/2019

Aziz Nanthaamornphong, Thanyarat Kitpanich, Mohd Helmy Abd Wahab, "Adoption of Agile by Software Developers in Thailand", In Proceedings of the 18th International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET 2019), 23-25 September 2019, Sarawak, Malaysia, pp.487-499

 9/2019


Hong Anh Le, Ninh Thuan Truong, and **Aziz Nanthaamornphong**, A Model-based Method for Modeling and Verifying Event-Based Aspect-Oriented Applications, Recent Advances and Future Prospects in Knowledge, Information and Creativity Support Systems: Selected Revised Papers from the 10th International Conference on Knowledge, Information and Creativity Support Systems (KICSS 2015),Phuket, Thailand, pp. 281-289

 1/2018


Anawat Leatongkam, **Aziz Nanthaamornphong**, and Damian W. Rouson, WIP: Generating Sequence Diagrams for Modern Fortran, The 2017 International Workshop on Software Engineering for Science Held during ICSE 2017, pp. 22-23, Buenos Aires

 5/2017

Aziz Nanthaamornphong, A Case Study: Test-Driven Development in a Microscopy Image-Processing Project, The 4th International Workshop on Software Engineering for High Performance Computing in Computational Science and Engineering (SE-HPCCSE16) co-located with Super Computing 2016, pp. 9-16, Salt Lake City, Utah, USA

 11/2016


Aziz Nanthaamornphong and Rattana Wetprasit, A Case Study: Adoption of Agile in Thailand, The 8th International Conference on Advanced Computer Science and Information Systems, pp. 585-590, Malang, Indonesia.

 10/2016

Aziz Nanthaamornphong and Apatta Chaisutanon, Empirical Evaluation of Code Smells in Open Source Projects: Preliminary Results, The 1st International Workshop on Refactoring (IWor 2016) in Conjunction with ASE 2016, pp.5-8, Singapore

 9/2016


Aziz Nanthaamornphong, Anawat Leatongkam, Thanyarat Kitpanich, and Pongsakorn Thongnuan, Bytecode-based Class Dependency Extraction Tool: Bytecode-CDET, The 7th International Conference on Information Technology and Electrical Engineering, pp. 6-11, Chiangmai, Thailand

 10/2015


Aziz Nanthaamornphong and Rattana Wetprasit, A Controlled Experiment: Do Visitor Patterns Improve Software Simplicity, The 8th Malaysian Software Engineering (MySEC), pp. 90-95, Langkawi, Malaysia

 9/2014

Aziz Nanthaamornphong, Karla Morris, Salvatore Fillipone, Extracting UML class diagrams from object-oriented fortran: Foruml. The 1st International Workshop on Software Engineering for High Performance Computing in Computational Science and Engineering in Conjunction with SC13, pp. 9-16, Colorado, Denver, USA

 11/2013

Aziz Nanthaamornphong, A Pilot Study: Design Patterns in Parallel Program Development, The 1st International Workshop on Software Engineering for High Performance Computing in Computational Science and Engineering in Conjunction with SC13, pp. 17-20, Colorado, Denver, USA

 11/2013

Aziz Nanthaamornphong, Karla Morris, Hope A. Michelsen, Damian W. I. Rouson, A Case Study: Agile Development in the Community Laser-Induced Incandescence Modeling Environment (CLiIME), The 6th International Workshop on Software Engineering for Computational Science and Engineering in Conjunction with ICSE'13, pp. 9-18, San Francisco, California, USA

 5/2013

Aziz Nanthaamornphong, Jeffrey Carver, Design Patterns in Software Maintenance: An Experiment Replication at University of Alabama, The 2nd International Workshop on Replication in Empirical Software Engineering Research, pp. 15-24, Alberta, Canada

 9/2011

NATIONAL PROCEEDINGS

Anawat Leatongkam and **Aziz Nanthaamornphong**, Modern Fortran Transformation Rules for UML Sequence Diagrams, The 13th National Conference on Computing and Information Technology (NCCIT 2017), pp.247-280, Bangkok, Thailand.

 1/2017

Thanyarat Kitpanich and **Aziz Nanthaamornphong**, The Empirical Evidence on Software Maintainability in Open Source Projects, The 13th National Conference on Computing and Information Technology (NCCIT 2017), pp.267-273, Bangkok, Thailand.

 1/2017

Aziz Nanthaamornphong, Weerayut Hongsa, Nimaslan Auseng, and Chanwit Julrod, The Log File Management with AirLog, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp. 292-297, Khon Kaen, Thailand

 1/2016

Rattana Wetprasit and **Aziz Nanthaamornphong**, Phuket Smart City and the Needs of its Population, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.599-604, Khon Kaen, Thailand

 1/2016

Suchada Pongprom, **Aziz Nanthaamornphong**, and Rattana Wetprasit, Encouraging Students' Interest in Software Development by Test-Driven Development, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.478-483, Khon Kaen, Thailand

 1/2016

Apatta Chaisutanon, **Aziz Nanthaamornphong**, and Rattana Wetprasit, Code Smell Influences in the Code Review for Open Source Software Projects, The 12th National Conference on Computing and Information Technology (NCCIT 2016), pp.170-175, Khon Kaen, Thailand

 1/2016

CHAPTERS

Aziz Nanthaamornphong, and Rattana Wetprasit. "Thailand's Software Startup Ecosystem." In *Fundamentals of Software Startups*, pp. 195-213. Springer, Cham, 2020.

 3/2020

TRAINING

- **Introduction to Data Science**, Bangkok, Thailand, June 2-3, 2016
- **Agile Workshop**, Bangkok, Thailand, 3-5 April, 2015
- **Object-Oriented Programming in Fortran**, University of California at Berkeley, California, USA, 03/2012
- **Evaluating Software Architecture**, Software Park, Bangkok, Thailand, 05/2008
- **Software Project Estimation and Measurement**, Software Park, Bangkok, Thailand, 11/2007
- **Project Management for CMM**, Compulink System Ltd., Pune, India, 06/2005

OTHERS

INDUSTRY WORK EXPERIENCE

Executive System Analyst, Software Industry Promotion Agency (SIPA), Ministry of Information and Communication Technology, Phuket branch, Thailand, 2005-2009

Project Leader, Northstar Infosys Co., Ltd., Bangkok, Thailand, 2002-2005

Junior Developer, Drumbeat Digital (Thailand) Co., Ltd., 2001-2002

PROFESSIONAL ACTIVITIES

Conference Organizers

- Special Session Chair of the 18th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2021)
- Publication Chair of the 18th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2021)
- General Chairs of the 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2020)
- General Co-Chairs of the 23rd International Computer Science and Engineering Conference (ICSEC 2019)

Conference/Workshop Program Committees

- International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON), 2020 - 2021
- International Computer Science and Engineering Conference (ICSEC), 2019
- The International Joint Conference on Computer Science and Software Engineering, 2018

- International Conference on Enterprise Architecture and Information Systems, 2018
- International Conference on Computing and Information Technology, 2018
- The 2nd International Conference on Information Technology, 2017
- The National Conference on Information Technology, 2015 - 2021
- The 2nd International Conference on Enterprise Architecture and Information Systems, 2017
- The National Conference on Computing and Information Technology, 2015 - 2018
- The 2015 Workshop on Software Engineering, 2015
- Empirical Software Engineering and Measurement, 2012-2014
- The 3rd Annual PSU Phuket International Conference, 2014
- Asia-Pacific Workshop on Software Engineering for Computational Science and Engineering, 2013
- International Symposium on Software Reliability Engineering, 2013
- International Workshop on Replication in Empirical Software Engineering Research, 2013
- The 50th ACM Southeast Conference, 2012

Conference/Workshop Session Moderator

- The 10th Malaysian Software Engineering Conference, 2017
- The 2015 Workshop on Software Engineering, 2015
- The 7th National Conference on Information Technology, 2015

Journal Reviewers

- IEEE Transaction on Software Engineering
- Software Quality Journal
- Journal of Software : Evolution and Process
- Information and Software Technology
- Computing in Science & Engineering
- Journal of Software: Practice and Experience
- Institute of Electronics, Information and Communication Engineers
- International Journal of Web Information Systems

RESEARCH GRANTS

- Aziz Nanthamornphong (PI), *Marketing Channel Development for Wellness Spa in Southern Thailand*, Spearhead Funding, Thailand Science Research and Innovation, 2018-2020
- Aziz Nanthamornphong (PI), *Code Smell Influences in the Code Review for Open Source Software Projects*, National Science and Technology Development Agency, 04/2018-04/2019
- Rattana Wetprasit (PI) and Aziz Nanthamornphong (Co-PI), *Status of Tech-Startup in Thailand*, Faculty of Technology and Environment, 08/2017 - 08/2018
- Kwankamon Dittakan (PI), Aziz Nanthamornphong (Co-PI), and Noppon Leardchoowongsa (Co-PI), *Early detection of Alzheimer's Disease with Image Processing*, Bangkok Hospital, 09/2016-09/2017
- Aziz Nanthamornphong (PI) and Rattana Wetprasit (Co-PI), *Effectiveness of Agile in Thailand*, Faculty of Technology and Environment, 06/2014-06/2016

AWARDS

- **Staff of the Year Award 2020**, *College of Computing, Prince of Songkla University, Phuket Campus*
- **Outstanding Researcher Award**, *PRIDE of PSU 2020*
- **Best Paper Award**, *The 17th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2020)*
- **Outstanding Researcher Award**, *PRIDE of PSU 2019*
- **Best Paper Award**, *The 23rd International Computer Science and Engineering Conference (ICSEC 2019)*
- **RGJ-PhD Scholarship** for Advisor 2018
- **Outstanding Researcher Award**, *PRIDE of PSU 2018*
- **Best Paper Award**, *The 10th Malaysian Software Engineering Conference (MySEC 2017)*
- **Outstanding Paper Award**, *The 10th Malaysian Software Engineering Conference (MySEC 2017)*
- **Best Paper Award**, *The 13th National Conference on Computing and Information Technology (NCCIT 2017)*
- **Travel Stipend**, *The 2017 International Workshop on Software Engineering for Science*
- **Travel Stipend**, *The National University of Singapore (NUS) SoC Research Workshop 2017*
- **Teacher nominated by Students as Beloved, and Faithful**, *PRIDE of PSU 2017*
- **Travel Stipend**, *The 4th International Workshop on Software Engineering for High-Performance Computing in Computational Science and Engineering, 2016*
- **Best Session Speaker**, *The 8th International Conference on Advanced Computer Science and Information Systems, 2016*
- **Best Paper Award**, *The 8th Malaysian Software Engineering (MySEC 2014)*
- **Royal Thai Government Scholarship** (Ph.D.program), 2008 - 2014
- **Outstanding Undergraduate Student**, *Faculty of Engineering, Thammasat University, 1997*