

WONHONG NAM

CURRICULUM VITAE

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PERSONAL	Date of birth: Feb. of 20th, 1974 Citizenship: Republic of Korea	
RESEARCH INTERESTS	<ul style="list-style-type: none">• Formal Verification: Model Checking, Temporal Logics, and BDDs.• Theory: Algorithms, Computational Complexity, Automata, Logics.• Software Analysis: Static Analysis, Interface Synthesis.• Web Services: Automated Composition and Verification.• Automated Planning and Controller Synthesis.	
EDUCATION	Doctor of Philosophy in Computer and Information Science University of Pennsylvania, Philadelphia, PA, USA. Advisor: Prof. Rajeev Alur Thesis: Synthesis and Compositional Verification Using Language Learning	Sep 2001–May 2007
	Master of Science in Computer Science and Engineering Korea University, Seoul, Republic of Korea. Advisor: Prof. Jinyoung Choi Thesis: Formal Verification and Testing of RACE Protocol and CCA Board Using SMV	Sep 1998–Aug 2001
	Bachelor of Science in Computer Science and Engineering Korea University, Seoul, Republic of Korea. Military Service, Korea Army (Apr 1996–Sep 1997)	Mar 1992–Aug 1998
RESEARCH, TEACHING AND WORK EXPERIENCE	Associate Professor, Konkuk University Seoul, Korea	Mar 2014–present
	Assistant Professor, Konkuk University Seoul, Korea	Mar 2010–Feb 2014
	Post-Doctoral Research Fellow, Pennsylvania State University University Park, PA, USA Supervisor: Prof. Dongwon Lee	Jan 2007–Dec 2009
	Internship, Cadence Design Systems New Providence, NJ, USA. Supervisor: Dr. Robert P. Kurshan	Jun 2005–Aug 2005
AWARDS AND HONORS	<ul style="list-style-type: none">• Scholarship, University of Pennsylvania, USA, Sep 2001 – Jan 2007, approx. \$50,000/year.• Best paper award, Cadence Technical Conference (CTC'06), USA, 2006.• National Scholarship, The Ministry of Information and Communication, Republic of Korea, 2001–2005, \$60,000.	

PUBLICATIONS Publications are available online at <http://konkuk.ac.kr/~wnam>.

- JOURNAL ARTICLES**
- [1] **Wonhong Nam**, Dokyoung Lee, Hyunyoung Kil. **Performance Analysis of Satisfiability Solvers for Bounded Model Checking**. *Information*, Vol. 21(6), June 2018. Scopus.
 - [2] Reeseo Cha, **Wonhong Nam**, Jin-Young Choi. **Reliable Approximated Number System with Exact Bounds and Three-valued Logic**. *International Journal of Computer Systems Science and Engineering*, Vol.33(3). May 2018. SCI-E.
 - [3] **Wonhong Nam**, Reeseo Cha, Hyunyoung Kil. **Optimal Algorithm for Internet-of-Things Service Composition Based on Response Time**. *International Journal of Web and Grid Services*, Vol.12(4), 388-406, 2016. SCI-E. IF=1.615.
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 - [5] Seonmo Kim, **Wonhong Nam**, Hyunyoung Kil, Myunghwan Park. **Formal Verification of Gravity-induced Loss of Consciousness Monitoring System for Aircraft**. *Computing in Science & Engineering*, Vol. 16(5):96–103, Sep/Oct 2014. SCIE, IF=1.729.
 - [6] Hyunyoung Kil, **Wonhong Nam**. **Automatic Composition of Internet-of-Things in Service Level Using Boolean Satisfiability**. *Information*, Vol. 17(10A):4949–4956, Oct 2014. Scopus.
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 - [8] Hyunyoung Kil, **Wonhong Nam**. **Semantic Web Service Composition via Model Checking Techniques**. *International Journal of Web and Grid Services*. Vol. 9(4):339–350. 2013. SCI-E, IF=1.615.
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 - [10] Hyunyoung Kil, **Wonhong Nam**, Dongwon Lee. **Behavioral Description Based Web Service Composition Using Abstraction and Refinement**. *International Journal of Web and Grid Services*. Vol. 9(1):54–81. 2013. SCI-E, IF=1.919.
 - [11] **Wonhong Nam**, Hyunyoung Kil, Dongwon Lee. **On the Computational Complexity of Behavioral Description-Based Web Service Composition**. *Theoretical Computer Science*. Vol. 412(48):6736–6749. Nov 11, 2011. SCI, IF=0.665.
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 - [14] **Wonhong Nam**, P. Madhusudan, Rajeev Alur. **Automatic Symbolic Compositional Verification by Learning Assumptions**. *Formal Methods in System Design (FMSD)*, Vol. 32(3):207–234, Jun. 2008. SCI-E, IF=0.690.
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Computer-Assisted Resuscitation Algorithm (CARA) Infusion Pump Control System, *International Journal on Software Tools and Technology Transfer (STTT)*, Vol.5(4):308–319, May 2004.

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- [17] Myoung Jin Nam, **Wonhong Nam**, Jin-Young Choi, Periklis Akritidis. **MemPatrol: Reliable Sideline Integrity Monitoring for High-Performance Systems**. In *14th International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment (DIMVA 2017)*, LNCS Vol. 10327, page 48–69, 2017. Bonn, Germany.
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- [24] Jungjae Lee, Reeseo Cha, Younghun Han, **Wonhong Nam**, Jin-young Choi, Won-Tae Kim, Seung-Min Park. **Modeling Cyber-Physical Systems Using Hybrid System Framework: A Case Study**. In *The 2nd International Conference on Research Challenges in Computer Science (ICRCCS 2010)*, December 18–19, 2010. China.
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- [33] X. Du, A. Kuehlmann, R. P. Kurshan, K. L. McMillan, **W. Nam**. **Formal Verification of Industrial Benchmarks Using Flexible Engine Architecture**. In *Cadence Technical Conference (CTC'06)*, May 8–10, 2006. USA. **The best paper award**.
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- RESEARCH PROJECT**
- [1] National Research Foundation of Korea (NRF) funded by the Ministry of Science, ICT and Future Planning. **Formal Verification of Heisenbugs for Multi-threaded Programs**. 06/2013–05/2016.
 - [2] Faculty Research Fund of Konkuk University. **Formal Verification of Pilot Monitoring Software for Aircraft Safety**. 05/2012–04/2013.
 - [3] Republic of Korea Air Force. **Formal Verification of Aircraft Safety System Algorithm**. 04/2011–02/2012.
 - [4] ITRC, NIPA-2010-C1090-1001-0008. **Developing Cloud Platform and its Services for Social Media Service**. 06/2010–12/2015.
 - [5] Faculty Research Fund of Konkuk University. **Efficient Web Service Composition System**. 04/2010–03/2011.

REFERENCES

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