

Do Haeng Lee

Curriculum Vitae

Experiences

- 2016.5 – Present **Senior Gameplay Engineer**, *Nexon Korea*, Gyeonggi-do.
Devcat Studio, Unannounced Sandbox Game, Unity Engine
- Engineering Lead, leading the team to agile
 - Developing the User-Game Editor using WPF and Unity Engine
 - Implementing data-driven core gameplay logics
 - Designing the gameplay architecture
- Meta Team**, Project Meta, Unreal Engine 4, canceled in Mar, 2018
- Developing the animation systems such as Locomotion, Combat and Parkour
 - Implementing parkour objects and parkour movement system
 - Developing Root-Motion generator for Unreal Engine using MaxScript
 - Procedural Mission Generation Simulator (Python, Django)
- 2013.12 – 2015.11 **Game Client Programmer**, *Estsoft*, Seoul.
Cabal2 Team, Cabal 2, CryEngine 3
- Solving numerous legacy game bugs
 - Improving projectiles, collision detection and level editing at CryEngine 3
 - Improving inhouse UI tool using wxWidget
 - Building up the automatic deploy system using Python
- 2012.08 – 2013.11 **Engine Programmer**, *Maiet*, Seoul.
Engine Team, RealSpace3, Inhouse Engine
- Debugging and profiling the engine
 - Implementing tone-mapping in HDR

Patents

- Pending, 2019 **Do-Haeng Lee** and Chul Kang, "In-game voice service using TTS", *Patent pending*
- 2018 Ho Young Hwang, **Do-Haeng Lee**, Won Hyoung Lee, Sung-Min Kang, "Path selection method and apparatus in cognitive radio network", *No. 10-1824190, Korea, Jan. 25, 2018*

Research Project Experiences

- 2011 – 2012 **The Antibandwidth of Complete 3-ary Tree of Height 3**, Researcher, funded by Kwangwoon University
- 2010 – 2012 **The Linear Discrepancy of Partially Ordered Set**, Researcher, funded by National Research Foundation of Korea
- 2010 – 2011 **Estimation for the Variation of the Concentration of Greenhouse Gases with Modified Shannon Entropy**, URP(Undergraduate Research Program), funded by Korea Foundation for the Advancement of Science & Creativity

Education

- 2008.3 – 2016.2 **Bachelor' Degree**, *Kwangwoon University*, Seoul, 4.2/4.5.
Major, Department of Computer Engineering
- 2012 – 2014 **Alternative Military Service**, *As a Skilled Industry Personnel in Maiet and Estsoft.*

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Publications

Journal Paper

- 2015 **Do-Haeng Lee**, Won Hyoung Lee, Sung-Min Kang and Ho Young Hwang,
"Frequency Allocation and Path Selection Scheme in Underlay Cognitive Radio Networks
Using Network Coding", *The Journal of Korean Institute of Communications and
Information Sciences*, Vol. 40, pp.2372-2380. Dec. 2015
- 2013 Sang-Mok Kim, **Do-Haeng Lee**, Eol Choi, Mi-Sol Koh and Jae-Kyu Yang,
"Estimation for the Variation of the Concentration of Greenhouse Gases with Modified
Shannon Entropy", *Journal of Environmental Science International*, Vol. 22, pp.1473-
1479. Nov. 2013
- 2012 **Do-Haeng Lee**, Minseok Cheong and Sang-Mok Kim,
"Some Reults on The Antibandwidth of k -ary Complete Trees of Height 3 for odd k ",
Far East Journal of Mathematical Sciences, Vol. 70, Issue. 1, pp.121-134, Nov. 2012

Conference Paper

- 2014 **D.-H. Lee**, W. H. Lee, and H. Y. Hwang,
"Network Coding-Based Relay Selection in Underlay Cognitive Radio Networks", *Proc.
KICS Conf*, pp. 352-353, Daejeon, Korea, Nov. 2014
- 2013 **D.-H. Lee**, W. H. Lee, E. Choi, and H. Y. Hwang,
"Subcarrier Allocation and Relay Selection for Uplink Transmission in OFDMA-Based
Cognitive Radio Systems", *Proc. ICTC*, pp. 485-487, Jeju, Korea, Oct. 2013
- 2013 E. Choi, **D.-H. Lee**, M. Chen, and H. Y. Hwang,
"Joint Resource Allocation and Path Selection in Network Coding-Based OFDMA
Relay Networks", *Proc. ICUFN*, pp. 780-784, Da Nang, Vietnam, Jul. 2013
- 2012 **D.-H. Lee**, S.-M. Kim,
"The Number of Isotones of Tightness 2 and 3", *Spring Meeting of the Korean
Mathematical Society*, p.68, Seoul, Korea, April. 2012
- 2011 **D.-H. Lee**, S.-M. Kim,
"Antibandwidth of Complete 3-ary Tree of Height 3", *Annual Meeting of the Korean
Mathematical Society*, p.114, Daegu, Korea, Oct. 2011

Prizes

- 2012 Pit a Pat, 3rd Prize, 3rd NHN Game literary award

Technical skills

Languages	C++, C#, Python, MaxScript, WPF
Programming	Reactive Programming(Rx), Object Oriented Programming(OOP)
Framework	MVP, MVVM, ECS
GameEngine	Unreal Engine 4, Unity Engine, CryEngine 3

Research Interests

Game	Animation, Gameplay System, Data Driven System, ECS Framework
Development	Continuous Integration, Code Review, Agile Development Process
Mathematics	Combinatorics, Graph Theory, (Anti)Bandwidth Problem
Network	Resource Allocation, Cognitive Radio, Network-Coding Network

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