Do Haeng Lee

Curriculum Vitae

Experiences

2021.9 – Present	**Software Engineer**, *Zigbang*, Remote.

Metapolis, Metaverse Project, Unity Engine
- Virtual Office, using as a remote working office
- Leading project quality improvement
- Early joining memeber

2021.2 – 2021.8   **Senior Gameplay Engineer**, *NCSOFT*, Gyeonggi-do.

NR Seed, Unannounced Metaverse Project, Unreal Engine 4
- New Metaverse Project
- Leading the team to Agile

2016.5 – 2021.2   **Senior Gameplay Engineer**, *Nexon Korea*, Gyeonggi-do.

Devcat Studio, Unannounced Metaverse 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

Devcat Studio, Mabinogi Mobile, Unity Engine
- Quest Team Manager
- Temporary Management Support, 2019.6   2020.1
- Quest and Contents Development Support
- Made the Team Work Properly

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*

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Activities

2021-Present	**Curator in the field of Software Engineering** , Careerly
2021	**Special Lectures for becoming a developer**, Samsung SW Academy For Youth
2021	**Developer Career Talk**, Careerly Skillup
2021	**Python for everyone.**, Careerly Skillup

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*.

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, Lua
Programming	Concurrent Programming, Reactive Programming(Rx), Object Oriented Programming(OOP), Clean Code
Framework	MVP, MVVM, ECS
GameEngine	Unreal Engine 4, Unity Engine, Roblox

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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