

# Mahardiansyah Kartika

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## OBJECTIVE

I would like to become a Game Programmer for summer internship or fall co-op.

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## EDUCATION

**Carnegie Mellon University**, Entertainment Technology Center (ETC), Pittsburgh, PA

*Expected May 2016*

*Relevant Coursework: Building Virtual World, Visual Story, Computer Graphics*

**Institut Teknologi Bandung**, B.S. in Computer Science, Indonesia

*July 2013*

*Relevant coursework: Algorithm & Data Structure, Object Oriented Programming, Computer Graphics, Artificial Intelligence*

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## SKILLS

**Programming Languages:** C, C++, C#, Java, Lua, JavaScript

**Engines, Tools, SDK:** Unity, Unreal Engine 4, Gideros, Microsoft XNA, J2ME, PlayStation Move, Oculus Rift, Leap Motion, Kinect, XCode, Visual Studio, Eclipse, Git, Subversion, Perforce, Mercurial, OpenGL, Android, iOS, Windows Phone

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## EXPERIENCE

Game Programmer, Nightspade (Mobile Game Studio) - Indonesia

*Aug 2011 – July 2014*

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## PUBLISHED GAMES

**Amago (C++ – Marmalade – iOS) – Nightspade - 2012**

- Improved Nightspade C++ 2D game engine for future game development.
- Implemented gameplay of side-scrolling endless runner game using Nightspade C++ game engine.

**Give a Dam (Lua – Gideros – iOS) – Nightspade - 2012**

- Created physic-based puzzle game using Box2D physics engine for Chupa Chups advertisement.
- Released the game on time with very tight schedule.

**Cronus (C# – Microsoft XNA Game Studio – Windows Phone 7) – Self-Published - 2012**

- Top 10 Worldwide Finalist Game Design: Phone Category, Microsoft Imagine Cup.
- Programmed UI logic and enhanced UI graphical effects.
- Implemented Level Editor mode using *Farseer* physics engine.

**Elemental Clash (Lua – Gideros – iOS, Android) – Self-Published - 2013**

- 1<sup>st</sup> Winner of Indonesia Mobile Developers Competition, Rockliffe.
  - Created Coverflow and Carousel GUI effect library for Gideros game engine from scratch.
  - Collaborated with client creating mobile version of card game.
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## ACADEMIC PROJECTS

**Computer Graphics (C++ – CMake) – ETC CMU - 2015**

- Implemented Mesh Subdivision algorithm using OpenGL and C++, Raytracing, and writing shaders in GLSL.

**Building Virtual Worlds (C# – Unity) – ETC CMU - 2014**

- Created entertaining experiences using Oculus Rift, Kinect, PS Move, and Leap Motion in one to three weeks with team of 5.
- Designed and implemented VR game. Mounted Leap Motion Controller on Oculus Rift and implemented player's hand image tracking from Leap Motion infrared camera and put hand image to VR world using Blob Detection.
- At the end of the course, all students (78 students) were asked to rank each other (Peer Feedback). My overall ranks were:

Quality of Work	: 1 <sup>st</sup>	Easy to Work With	: 1 <sup>st</sup>	Efficiency	: 2 <sup>nd</sup>
Hours Worked	: 3 <sup>rd</sup>	Availability	: 4 <sup>th</sup>	Creativity	: 17 <sup>th</sup>

**Human-like NPC in FPS Game (Java - Netbeans) – Institut Teknologi Bandung - 2013**

- Implemented human-like NPC in FPS Game using Genetic Algorithm and Artificial Neural Network.
  - Used Unreal Tournament 2004 game to test humanness rating of the NPC using Turing Test.
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## AWARDS AND HONORS

- Full Scholarship for master's degree in Carnegie Mellon University, *Indonesian Government, Nov 2013*
- 1<sup>st</sup> Winner of Indonesia Mobile Developers Competition, *Rockliffe, Sept 2013*
- Top 10 Worldwide Finalist Game Design: Phone Imagine Cup Sydney Australia, *Microsoft, July 2012*
- Winner of Coding 24 hours Nokia Lumia Developer Day, *Nokia, Feb 2012*