RIKKY ROY KOGANTI

Software Engineer

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Education

Carnegie Mellon University (CMU), Entertainment Technology Center (ETC)
Aug 2015 - May 2017
- Master of Entertainment Technology

Carnegie Mellon University, School of Computer Science (SCS)
Aug 2011 - May 2015
- Bachelor of Science in Computer Science
- Bachelor of Science in Mathematics
- Minor in Game Design

Courses Taken

Artificial Intelligence, Computer Graphics, Parallel Computing and Architecture, Algorithms Design and Analysis, Web Applications Development, Intro to Computer Systems, Principles of Software Construction, Computer Game Programming, Production and Leadership

Skills

Software Engineering

C#, C/C++, Python, Java, Visual Studio, Git/Perforce/SVN

Web Programming

Javascript, jQuery, HTML/CSS, Node.js, SQL, Django, Express

Game/VR Development

Unity, Unreal, HLSL/CG, Oculus, HTC Vive, PSVR, Google Daydream, Google Cardboard, GearVR

Activities

Tartan Student Fund
Stock Analyst, Aug 2013 - Aug 2014
- An investment fund run by students. Joined during its first year of inception.
- Initial fund of $500k from the school.
- Helped Increase fund by 10% in a year.

Apex
Founder, Aug 2011 - May 2014
- Founded a new buggy racing organization as a freshman with 8 others.
- Helped grow organization to over 30 members and achieve top ten ranking in races.

Work Experience

Schell Games, Pittsburgh **May 2016 – Dec 2016**
Engineering Intern
- Graphics, Artificial Intelligence (AI) and tools engineer on Frostbound, a game for the Google Daydream. Programmed and optimized enemy AI, shaders, VFX, and developed tools using C# for artists and designers to use in the Unity engine.
- Performance engineer on 'I Expect You To Die', for PlaystationVR (PSVR). Helped to bring it up to a stable 90 FPS on platform in all test cases.
- Networking and gameplay engineer on a successful pitch team to develop more internal IP for PSVR. Wrote fast, secure server code for online multiplayer and matchmaking.

Robotics Department, CMU, Pittsburgh **Dec 2014 – May 2015**
Research Assistant
- Research aimed to develop smarter, self-learning artificial intelligence for video game companion non-player characters (NPCs). Primarily developed in C++
- Created comprehensive data structures representing all aspects of the game world, further developed the logic of the adaptive, learning AI algorithm, and programmed enemy AI.

Institute of Infocomm Research, Singapore **Jan 2009 – Feb 2009**
Research Intern
- Worked on the Brain-Control Interface (BCI) project. Developed a 2D platform game, using Java, that was playable via brain signals gathered using sensors.
- Used in experimental treatments at children hospitals in Singapore, for kids with Attention Deficit Hyperactive Disorder (ADHD), with encouraging results.

Academic Projects

Nova – Virtual Reality (VR) Exploration with Viacom Next, ETC **Spring 2016**
Programmer and Producer
- Developed 2 VR demos for Viacom Next, that are showcased in their demo room in their headquarters. Worked in a team of 6 and used the HTC Vive and Unity engine with C#.
- Gameplay and tools programmer for both games. Also coded 5 VR prototypes to test out the potential and feasibility of various ideas in VR.
- Producer of the project. In charge of client-team and faculty-team communications, documentation of our project, playtesting, implementing Scrum methodology, keeping our website updated and making sure that we reached our project goals.

Web Application Development Final Project, SCS **Fall 2014**
Keepin' It Realtime - Programmer
- Developed an interactive website using Python and Django to host multiplayer games, made in Unity. The games are played online in real-time against other users of the site.
- Featured leaderboards, account creations, chat system, friend lists, playing as a guest.
- Developed and hosted 3 realtime multiplayer games: a shooter, chess and a platformer.

Parallel Computing and Architecture Final Project, SCS **Spring 2014**
Simulating Propagation of RNA Viruses - Programmer
- Created a C++ simulation of the propagation of viruses between humans in different types of environments that could run infinitely.
- Coded multiple data structures to represent the environments and designed various algorithms to implement the behavior of the virus propagation.
- Integrated CUDA to parallize the simulation and speed it up 13x on average.

Personal Projects

Junk Food Pilgrimage – Mobile game for Android **Spring 2016**
Lead Programmer
- Shipped a game on the Google Play Store. Developed using Unity and C# for the Global Game Jam 2016, in a team of 6. Kept working on it afterwards and released it.
- Programmed the gameplay, touch controls, and integrated Google Play Services.
- Wrote up in-depth documentation on publishing an Android game using Unity for others to use, on my website.