Abhikalp Unakal

I'm a software engineer and musician constantly in pursuit of creating beautifully designed digital experiences.

Phone +1 425 615 2103
Email abhikalpunakal@outlook.com
Website https://abhikalpunakal.com

EXPERIENCE

Roland Corporation U.S, Seattle

Intern Software Engineer - Roland Cloud   SEP 2020 - APR 2021

I'm currently working with the Editor Team to create a Virtual Tone editor that lets JUPITER-X users manage the various on device controls on their devices via MIDI using C++.

Danske Bank, Bengaluru – Copenhagen

Software Engineer - Advanced Analytics Platform   MAR 2018 - JUL 2019

Created Customized Pipelines for Data and Machine Learning Model Deployment, that increased throughput and allowed the platform team to deploy models in 2 weeks using my automated pipelines instead of 3 months in the earlier deliveries.

Global Graduate - Advanced Analytics Platform   SEP 2017 - MAR 2018

Worked with the Advanced Analytics Team to enhance their big data capabilities. Was Responsible for architecting the model deployment framework on the Hadoop setup. Automated heartbeat framework to check the health of client edge nodes in python.

Global Graduate   SEP 2016 - SEP 2017

Worked on Information management on Mainframes at the Data Foundation. Also worked with The Treasury Department of Danske Bank to help optimize and troubleshoot their reporting flows for the central banks.

EDUCATION

DigiPen Institute Of Technology, Redmond(WA), USA
M.S Computer Science and Engineering   SEP 2019 - APR 2019

PES Institute Of Technology, Bengaluru,India
B.E Computer Science and Engineering   AUG 2012 - JUL 2016

PROJECTS

Atom— *Game Engine 3.0 Built from Scratch using c++*   [IN PROGRESS]
Working on a new and improved version of Auxeon Engine with Event systems and multiplatform support and an ECS engine and 3D audio.

https://www.youtube.com/watch?v=qDjw00-M0QI

MoorerReverb Research Paper Implementation— Real Time *Reverb Engine in JUCE*
Written from scratch using c++ and JUCE this is a VSTplugin that can work in any DAW. This is a research paper implementation of James A Moorer's Research Paper

https://github.com/auxeon/MoorerReverb

Katana Utility AI — *Custom Utility AI for football 2D*
Soccer simulation and AI written in C# using unity that is based on utility based behavior AI – one of the most fun projects I worked on. https://www.youtube.com/watch?v=rBCwW9KNq9A

Automated Machine Learning Model Deployment Pipelines — *Jenkins + python*
Custom Framework built to enhance the Model Deployment Scheduling and executor node orchestration on hadoop. Tech stack used – Jenkins, Chef, Python, Spark, Redis, Artifactory, linux, Netapp Shared drives.

Orange Audio — *Music Visualizer + Note Detection*
Written from scratch using C++, OpenGL and ALSA for Audio Driver API's.

https://github.com/auxeon/OrangeAudio

The Pursuit — *Online Treasure Hunt*
 This was an exciting leaderboard time based online treasure hunt framework created from scratch. I also hosted 3 successful events with over 2000 participants.

SKILLS

Technical
C++
JUCE
Python
Linux
Hadoop
PHP
Automation CI/CD
Chef

Software
Logic Pro
Photoshop
Unity

Audio
Composing Tracks
Audio Production
Vocals
Pianist

Design
Web Design
Game Design
InVision

ACHIEVEMENTS

Global Graduate Program
Runner Up Case Study Competition

Exchange Student
San Jose State University Completed with 89%

TEDx Organizer
TEDˣPESITBSC chapter

NID Design Festival
Runner Up All India Student Design Competition