

Abhikalp Unakal

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

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EXPERIENCE

Roland Corporation U.S, Seattle

Intern Software Engineer - Roland Cloud

SEP 2020 - PRESENT

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.

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

DEC 2019 - [PRESENT]

PES Institute Of Technology, Bengaluru, India

B.E Computer Science and Engineering

AUG 2012 - JUL 2016

PROJECTS

Lime — 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.

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>

Auxeon Engine — Game Engine Built from Scratch using c++

Written from scratch using c++ and OpenGL. This is based on the Entity component System Architecture. Also created a simple 2D platformer Game using the same engine.

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. This uses Fast Fourier Transforms to isolate frequency bins and displays the audio spectrum data visually in real time.

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++
JUICE
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