

# 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

### 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-MoQI>

### 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++  
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