

# Abhikalp Unakal

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## PROFESSIONAL EXPERIENCE

### Meta, Software Engineer

2021 – present | Redmond | Vancouver

Audio Research at Meta Reality Labs - Shipped "Conversation Focus" on Ray Ban Meta glasses

<https://www.yahoo.com/entertainment/articles/meta-connect-2025-showcases-three-151420069.html> 🔗

### Roland Corporation US, Software Engineering Intern

2020 – 2021 | Redmond

Shipped a device editor as part of the Roland Cloud Editor Team to create a Virtual Tone editor that lets JUPITER-X users manage their sound profiles. I was responsible for the UX design and Metrics Data Collection for this project. Roland - JUPITER-X Editor | Editor/Librarian [https://www.roland.com/us/products/rc\\_jupiter-x\\_editor/](https://www.roland.com/us/products/rc_jupiter-x_editor/) 🔗

### Danske Bank, Software Engineer

2016 – 2019 | Bengaluru | Copenhagen

Designed and deployed a customized pipelines for efficient data model deployment framework on a Hadoop cluster with 50 Hadoop boxes and 250 edge nodes reduced deplyments from 3 months to 1 week.

## EDUCATION

### DigiPen Institute of Technology, M.S. Computer Science

2019 – 2021 | Redmond, USA

### PES Institute of Technology, B.E. Computer Science

2012 – 2016 | Bengaluru, India

## PROJECTS

### Atom - Game Engine 3.0 Built from Scratch using c++

I was the Tech lead + producer on this project and managed 3 other engineers. This game engine had advanced Event systems, 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 VST plugin 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

Football AI in C# using unity that employs utility based behavior behavior trees. One of the most fun projects I worked on.

<https://www.youtube.com/watch?v=rBCwW9KNq9A> 🔗

## ACHIEVEMENTS

### San Jose State University,

Exchange Student with 89%

### All India Student Design Competition,

Runner Up - event organized by NID

### Danske Bank,

Runner up - case study competition

## SKILLS

C++

C

Python

C#

Audio DSP

Embedded systems

Unity Game Engine

Custom Game Engine Tech

Godot Game Engine

React JS

FastAPI

Torch

Numpy

OpenGL