# Abhikalp Unakal

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## PROFESSIONAL EXPERIENCE

**Meta Platforms, Inc,** *Software Engineer*
2021 – present | Redmond
Currently working on Advanced Development involving custom hardware, that furthers Audio Research at Meta Reality Labs

**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/* ⤢

**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