

Satyarth Arora

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PUBLICATIONS

[FAST ALGORITHMS FOR BLACKBOX MODELLING OF STATIC HAMMERSTEIN NONLINEARITIES](#)

Oct 2022

Satyarth Arora & Christopher Bennett
Audio Engineering Society, 153rd Convention

PROJECTS

- **AuxPort | (C++, JUCE)** **Jan 2021 - Present**
 - Independently developed open source C++ library that provides Audio, DSP, and GUI modules for Audio Software Development.
- **AuxPlugins | (C++, JUCE, VST3)** **Jun 2022 – Apr 2023**
 - [AuxRumble](#) – Psychoacoustic Bass Enhancer for Small Speaker setups
 - [AuxWiden](#) – Filter based Stereo Widener
 - AuxShaper – Bezier Curve based Waveshaper with Antialiasing
 - AuxSynth – Additive Harmonic Synthesizer
 - AuxRack – Effect Rack with Pitch Bend, Delay, Distortion, Filters
- **MetaSynth | (Matlab, Deep Learning)** **Mar 2022- Apr 2022**
 - Meta Programming of Digital Audio Synthesizers using LSTM Networks
- **Mango | (3xOsc , FL Studio)** **Jan 2020 - Present**
 - Synthesized Drums, Leads, Plucks, and Bases for electronic music production using a 3 oscillator subtractive synthesizer and an audio sampler.
- **EN1GMA | (Arduino)** **Mar 2019 - Apr 2019**
 - Engineered a device that projects 2D polygons onto a wall or screen via Laser Pointers.
- **SNAP-H | Automated Guided Vehicle** **Mar 2018 - Jan 2019**
 - Assembled and programmed a 4-Wheel Mini-Vehicle made from acrylic sheets powered by Stepper Motors controlled by an Arduino Microcontroller.

PROFESSIONAL EXPERIENCE

UNIVERSITY OF MIAMI | (C++, JUCE, RACKAFX)

CORAL GABLES, FLORIDA
Aug 2021 - Present

Graduate Teaching Assistant

- Secondary instructor for Audio Signal Processing II, Audio Signal Processing III and Transducer Theory.
- Organized and facilitated the Music Engineering Forum

TPM WORLD SERVICES | (ASP.NET,C#,MS-SQL)

GURUGRAM, INDIA
Jan 2021 – July 2021

Software Developer Intern

- Maintained and improved the backend of a product called Lucky Money.
- Integrated image scanning technologies, user interface improvements and maintained documentation of the Shred a Box web application.

KR MANGALAM WORLD SCHOOL GK II | (C++, JUCE, PYTHON)

NEW DELHI, INDIA
May 2020 - Sep 2020

Software Developer Intern

- Responsible for the development and maintenance of software that automates certificate generation.
- Developed a .CSV parser and implemented the PyPDF2 and FPDF libraries to generate certificates in PDF's.
- Designed and Developed the Graphical User Interface.

PRICORIS LLP | (Java, XML, C, CentOS)

NOIDA, INDIA
May 2019 - Aug 2019

Cyber Security Intern

- Developed Auditing software for IEC61850 compliant substations.
- Trained in administration, configuration and system management of OWL Data Diode.
- Developed an extension to OWL Data Diode's software to send notifications whenever a malicious packet is sent through the OWL Data Diode.

EDUCATION

UNIVERSITY OF MIAMI | GPA: 3.77/4

Aug 2021 - May 2023

Master of Science, Music Engineering Technology

- Beatboxer for UMiami Tufaan (Acapella Team)

APEEJAY STYA UNIVERSITY, HARYANA, INDIA | GPA: 3.73/4.3

July 2017 - July 2021

Bachelor of Technology Computer Science,

- Founder , Proxima (University's Technical Club)
- Head Coordinator, TechShield 2018 (University's Technical Fest).

SKILLS

Languages | Frameworks: C++, C, Objective-C, Python, Java, C#, HTML5, CSS, JavaScript | **JUCE, p5.js, WPF, ASP.NET, .NET Core, Jquery**
Technologies | Software: MS-SQL, Oracle SQL, OWL Data Diode, Git, Arduino, CMake | **DAW (FL Studio), Wireshark, Matlab, MS-Office**