

# Sachin Iyer

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## EDUCATION

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- **New York University** Brooklyn, NY  
*Bachelors of Science in Computer Science* Aug. 2021 – Present
- **Basis Independent Silicon Valley** San Jose, CA  
*High School Diploma* Aug. 2016 - Aug. 2020

## EXPERIENCE

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- **NYU Holodeck (Corelink)** Brooklyn, NY  
*Open Source Collaborator* February 2021 - Present
  - **Framework Design:** Helped design framework for plugin interaction within the network.
  - **Plugin Creation:** Writing low latency audio buffer transfers in C++ that interface with the corelink network.
  - **Latency Testing:** Did some latency testing with the NYU tri-fiber network.
- **Aruba HPE** Santa Clara, CA  
*Cloud QA Intern* June - August 2019
  - **Estimating Bandwidth:** Estimated Time Series Bandwidth using tools with Facebook Prophet and Auto ARIMA.
  - **QA testing:** Ran unit testing for developing software.
- **KIPP Academy Robotics Team** San Jose, CA  
*Team Mentor* June 2019 - June 2020
  - **Mentoring:** Mentored over 6 teams in primarily two schools in East San Jose with over 40 students.
  - **Course Curriculum:** Created agendas throughout the robotics season and planned days for each team.
- **BISV Robotics** San Jose, CA  
*Chief Engineer* 2018
  - **Mentoring:** Responsible for parts procurement, marketing, and mentoring eight robotics teams (over 60 students) on robotics development (mechanical, electrical, and software engineering) and other soft skills
  - **Transition:** Lead the club through the transitional year between club directors.

## PROJECTS

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- **Synesthesia Visualizer:** Create a visualizer that mimics the experience of Auditory Visual Synthesis, with audio analysis libraries (e.g. librosa) and through the use of pitch recognition algorithms (e.g. Yin) and frequency spectral analysis. Utilizes pure serverless aws infrastructure and augmented reality with browser based WebGL.
- **Electronic Trombone:** Engineer a midi controller in the form of a trombone using Arduino to apply standard instrument knowledge to electronic applications
- **Algorithmic Compositional Development:** Develop software to create music with computational platforms (e.g. tidal) in order to expand the flexibility of coding to today's methods of electronic music development
- **Audio Modulation and Synthesis Foot Pedal:** Use Arduino to create a foot pedal that takes midi input into an analog synthesizer, modulates input with basic audio effects from chorus to reverb, and outputs midi cc. This was to reduce costs and not have to carry three different devices.
- **Delivery Service:** Created a web crawling service to send a notification when there is a delivery slot available for Whole Foods, Costco, or Safeway. Used AWS SNS, serverless infrastructure with ECS and Lambda Functions, and selenium with headless chrome instances in docker containers.

## PROGRAMMING SKILLS

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- **Languages:** Python, Javascript, C++, (e)Lisp, HTML/CSS
- **Technologies:** AWS, Emacs, Blender, Fusion, Docker/Kubernetes

## CERTIFICATIONS

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- **Stanford Machine Learning by Andrew Ng:** July 2020
- **AWS Fundamentals Specialization:** June 2020