Suhel Keswani

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EDUCATION

Georgia Institute of Technology **2021 – 2025**
B.S Computer Science, Minor in Music - 3.92 GPA, Faculty Honors *Atlanta, Georgia*

- Threads (Areas of Concentration): Devices, Media
- Activities: Jazz Combos - 1st chair guitarist & soloist

EXPERIENCE

Grokker **Summer 2023**
Software Engineering Intern *San Jose, CA*

- Re-architecting and implementing micro-services with Event-Driven Architecture using Kafka, Node.js, and MongoDB

Georgia Tech VIP Program - Robotic Musicianship **Fall 2022**
Undergraduate Researcher *Atlanta, Georgia*

- Developed procedural music composition patch in Max/MSP using Markov Chains on MIDI data
- Selected to work under Dr. Gil Weinberg with Georgia Tech's world class robotic Marimba player, Shimon

Santa Clara University Laptop Orchestra (SCLOrk) **Summer2020**
Open-Source Development & Research Intern *Santa Clara, California*

- Edited, optimized, documented, & published double bass synthesizer model definition with Dr. Bruno Ruviaro to SCLOrkSynths code repository, an official SuperCollider quark

PROJECTS

Votr **2021**

- Won 3rd place in the NSA Secure Code challenge at Georgia Tech's 2021 HackGT hackathon
- Created a proof-of-concept for a secure & accessible online election
- Built a blockchain data structure in Python to maintain an immutable & anonymous record of verified ballots
- Developed a web-app to interact with the blockchain using React.js, Django REST Framework, HTML, & CSS

BandMate **2020**

- Jazz accompaniment system that procedurally generates music
- BandMate gives musicians control of their music, supporting recording and storing audio files in .mp3, .aidd, and .wav formats
- System allows users to tune parameters, including: tempo, key, rhythm, and chord progression
- Parameters are controlled by intuitive GUI, includes volume sliders/buttons, specifically designed for musicians

Chord Crafter **2020**

- Developed software MIDI Instrument with SuperCollider that outputs data into a Digital Audio Workstation (DAW) for sound synthesis
- Converts standard chord notation to an array of MIDI note numbers
- Intuitive GUI allows musicians to notate extended chords up to the thirteenth scale degree with inversions

RELEVANT COURSEWORK

Computer Graphics; Computer Systems & Networks; Computer Organization & Programming; Applied Combinatorics; Objects & Design; Data Structures & Algorithms; Discrete Mathematics; Linear Algebra; Object-Oriented Programming; Calculus 1, 2 & 3; Physics 1 (Mechanics) & 2 (Electricity & Magnetism)

SKILLS & TECHNOLOGIES

Java, Python, C/C++, Sound & Music Computing, OpenGL, JavaScript, Kafka, React.js, Node.js, MongoDB, Django, Firebase, HTML/CSS, Figma, Git, ARM Assembly, CAD