



DANIEL A FARONBI

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SUMMARY

Dedicated to the combination of music and technology, Daniel seeks innovated solutions to problems in both fields.

WEBSITES, PORTFOLIOS, PROFILES

- <https://danielfaronbi.com/>
- <https://www.linkedin.com/in/daniel-faronbi-7aa61b184/>
- <https://github.com/dafaronbi>

SKILLS

- Python, C++, C, Java, Java Script, Kotlin
- Machine Learning/Deep Learning
- Digital Signal Processing,
- Computer Vision, Music Information Retrieval
- Embedded system development: ARM, AVR, and PIC microcontrollers.
- Linux and Minix Kernel Knowledge
- Front and Back end web development (java script, node js, django)
- PCB design with Eagle Cad and OrCad
- Serial communication protocols: SPI, I2C, UART
- Electronic Circuit Design: amplifiers, voltage regulators, current sources
- Electrical skills with Logic Analyzer usage, Multisim, Oscilloscope usage, Soldering
- Production in Ableton Live, FL Studio, Max MSP, and Pro Tools

EXPERIENCE

PHD Student / New York University - New York, NY

08/2021 - Current

Assisting various research projects in NYU's Music and Audio Research Laboratory (MARL). This includes personal projects focused on automatic synthesizer programming, work on updating Librosa (an MIR python library), work on the MARL's S3D projects, and work in the Critical Sonic Practice Lab.

Machine Learning Engineering Intern / Bose Corporation - Farmingham, MA

06/2022 - 08/2022

Worked on projects including environmental sound based compositions, source separation for speech, music, and sound effects, and evaluation techniques for deep RMS noise estimators.

Research Assistant (Operations Research) / University Of Nebraska At Omaha - Omaha, NE

08/2020 - 05/2021

Research Assistantship of NSF funded project through the mathematics department at UNO. The research is focused on implementation of multidimensional search algorithms for linear programming with applications in the fields of machine learning or data science.

Wearable Computing REU / Washington State University - Pullman, WA

05/2020 - 08/2020

One NSF's prestigious Research Experiences for Undergraduates (REU) programs. The research focused on using DSP and machine learning techniques to classify stressed and unstressed regions in a variety of biometric signal data. The classifications of these signals were used to indicate the likelihood of alcohol relapse.

Engineer Intern / ScanMed LLC - Omaha, NE

07/2019 - 08/2020

Computer vision and machine learning work centered at creating automated diagnosis for prostate. Embedded microcontroller development for controlling MRI coils.

Media Support Engineer / Boys Town National Research Hospital - Omaha, NE

02/2018 - 12/2018

Provided audio and visual support for a variety of experiments at Boys Town National Research Hospital.

Network Engineer Intern / Union Pacific - Omaha, NE

06/2017 - 12/2017

Provided server connectivity for Union Pacific's network applications using CISCO IOS to configure switches and routers and editing pearl scripts used to generate DNS configurations.

Teaching Assistant / UNO Math Lab - Omaha, NE

01/2017 - 05/2017

Tutored math to many university students. the Math courses ranged from college algebra to business calculus. The job also required test proctoring and knowledge of educational computer software used in the math lab.

EDUCATION AND TRAINING

Ph.D.: Music Technology

New York University - New York, NY

Bachelor of Science: Computer Engineering

05/2021

University of Nebraska At Lincoln

GPA: 3.658

Bachelor of Arts: Music Technology

05/2021

University of Nebraska At Omaha

Minor: Mathematics

GPA: 3.658

ACTIVITIES AND HONORS

UNO Walter Scott Jr. Scholarship Recipient

The Walter Scott, Jr. Scholarship Program (Scott Scholars) is the most prestigious scholarship extended by the University of Nebraska system. The scholarship provides complete funding for an undergraduate college experience that includes tuition, room and board, and whole-person learning opportunities. Eligible areas of study include majors within the UNL College of Engineering, UNO College of Information Science and Technology, and other STEM related programs.

UNO Regent's Scholarship Recipient

Full tuition scholarship

UNO Honors Program Member

The University Honors Program is an academic learning community. The mission of the Honors Program is to provide an enhanced and supportive learning environment responsive to the educational needs of highly able and/or exceptionally motivated undergraduate students.

IEEE Eta Kappa Nu - IEEE National Honor Society

IEEE-Eta Kappa Nu (IEEE-HKN), the honor society of IEEE, promotes excellence in the profession and in education with ideals of Scholarship, Character and Attitude. It was founded on 28 October 1904 for students of electrical engineering. Today, IEEE-HKN promotes professional accomplishment, service, and development for students and professionals in electrical engineering, computer engineering, and other IEEE fields of interest.

EXTRACURRICULAR EXPERIENCE

National Association of LSAMP Alumni (NALA)

NALA's Vision is to ensure that underrepresented minority students in STEM are prepared to assume leadership roles and professional opportunities. We will foster the career development and transition of our LSAMP students through conferences, workshops, and mentorship. We will do this by developing a network of LSAMP Alumni to shine a brighter future for our current undergraduate students.

Walter Scott Junior Leadership Council

This was a leadership position for high achieving STEM students admitted to the Walter Scott Jr. Scholarship program. We helped revamp the mentorship aspect of the program to include upperclassmen mentoring lowerclassmen. We redesigned the admission process to be more holistic rather than focus on only set academic achievements. Harvard design thinking methods were used to solve problems.

Prairie STEM Teaching Assistant

Daniel has volunteered for the after school elementary STEM education program, Prairie STEM. In this program, young students are exposed to a variety of engineering projects. They had experience using CAD software to design architecture, mechanics, and circuits. Daniel volunteered as a teaching assistant for these lessons.

Music

Daniel is very active as a musician in the Omaha area. He is primarily a jazz pianist but has had training in other genres as well. He has studied piano under various faculty at the University of Nebraska Omaha including Dr. Kristín Jónína Taylor and Christopher Leach. He has played for a variety of ensembles, performing music from a wide variety of genres. He also plays the clarinet as a secondary instrument.

RELEVANT COURSES

- 3D Audio
- Audio Recording Techniques I, II, & III | Advanced Computer Music Composition
- Calculus I, II & III
- Communication Systems | Computer Vision
- Data Structures | Deep Learning | Differential Equations
- Digital Design | Digital Synthesis
- Electric Circuits I & III | Electronic Circuits I and II
- Embedded Microcontrollers | Finite Difference Equations
- Fundamentals of Conducting |
- Information Theory | Introduction to Data Science
- Java I and II | Jazz Arranging and Composition
- Psychology of Music
- Linear Algebra | Machine Learning
- Microprocessor Applications
- Microprocessor System Design | Mobile Robotics | Music History I and II
- Music Informatics | Music Information Retrieval
- Music Theory (3 classes) | Operating Systems
- Physics I and II (with calculus)
- Sound Reinforcement | Statistics
- Switching Circuits