

# Andrei Biswas

MUSICALLY ENTHUSED COMPUTER ENGINEER

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## Career Objective

To contribute my knowledge of Computer Engineering principles and gain valuable experience through experiential learning. Available from May to August 2019.

## Education

### Rochester Institute of Technology

Rochester, New York

BS IN COMPUTER ENGINEERING (HONORS PROGRAM) WITH MINOR IN MUSIC & TECHNOLOGY | **Cum. GPA: 3.64/4.00** | **C.E. GPA: 3.82/4.00**

Aug. 2016 - May 2021

• **Awards:** RIT Founders Scholarship for International Students; Dean's List (Fall 2016, Spring & Fall 2017, Spring & Fall 2018)

• **Relevant Courses:**

- |                               |   |                                     |                         |
|-------------------------------|---|-------------------------------------|-------------------------|
| - Multivariable Calc.         | - Probability and Statistics            | - Assembly Language Prog. w/ Lab    | - Computer Organization |
| - Differential Equations      | - Intro. to C.E. w/ Lab                 | - Circuits I w/ Lab and Circuits II | - Applied Programming   |
| - Discrete Math for Computing | - Digital System Design I and II w/ Lab | - Computer Science I and II         | - Electronics I w/ Lab  |
| - Linear Algebra              |   | - Intro. to Software Engineering    |                         |

### The Governor's Academy

Byfield, Massachusetts

HIGH SCHOOL DIPLOMA

Sept. 2012 - June 2016

## Experience

### Retail Business Services (Services Company of Ahold Delhaize USA)

Mooresville, North Carolina

EMERGING TECHNOLOGY INTERN

January 2019 - Present

### Analyzing Audio Signals for Machining Monitoring with Support Vector Machine

Rochester, New York

UNDERGRADUATE RESEARCH ASSISTANT AT RIT

May 2017 - Aug. 2018

- Developed a 50% faster and more accurate real-time monitoring system with a partner which takes sounds produced by different machining processes and labels them according to a classifier created by a support vector machine algorithm.

### Grading for Digital Systems Design II

Rochester, New York

GRADER FOR THE COMPUTER ENGINEERING DEPARTMENT AT RIT

Aug. 2018 - Dec. 2018

- Checked, corrected and helped with homework and quizzes for the students taking the class.

## Projects & Labs

- Exceeded professor's expectations by adding a login system and game observation features in a 5-person team to develop a checkers-game website respecting Agile methodology using Spark with Java, HTML, and JavaScript.
- Created a dependable, backup application using Python that syncs the Google Drive files with any device connected with the computer.
- Programmed a game in mixed C and ARM Assembly Language with user interaction and rules on a FRDM-KL46Z board.
- Programmed a swift AI in Java for a pathbuilding game that could compete against humans as well as other AIs.
- Designed a state-machine and wrote microcode with a partner to develop a fully-functioning multicycle CPU implementation by writing microcode and ROM instructions for an Accumulator Design Instruction Set Architecture.

## Skills

**Programming** Python, Java, ARM Assembly, C, VHDL, HTML, LaTeX  
**Software** Altera Quartus, ModelSim, OrCAD PSpice, Xilinx ISE  
**Hardware** Oscilloscope, Digital Multimeter  
**Languages** Fluent in English, Bengali, French and Hindi

## Extracurricular Activity

### Audio Engineering Society (AES)

Rochester, New York

VICE PRESIDENT; PRESIDENT

Aug. 2017 - May 2018; Aug. 2018 - Dec. 2018

- Held weekly meetings to discuss, implement, and experiment on audio engineering techniques, track analysis, speaker setups, and Digital Audio Workstations.
- Taught other piano players how to do simple improvisation and capture sound from an acoustic piano.

### Volunteer: DASTAK

New Delhi, India

TEACHER

Aug. 2015

- Taught the English language to girls who were in grade 10 whose mother tongue is Hindi.

### Volunteer: CENSOIFF: ONG Centre Solidarité

Abidjan, Ivory Coast

TEACHER

Aug. 2013

- Taught the English language to a group of 16 children, aged 7-15, whose mother tongue is French.
- The work attracted a lot of attention and an article was published in a local newspaper.