

# SIEF ATARI

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## EDUCATION

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**Drexel University** 2022 - 2027  
Doctor of Philosophy in Electrical and Computer Engineering  
Drexel VLSI and Architecture Lab (VANDAL)  
Advisor: Dr. Baris Taskin  
GPA: 4.00

**University of Bridgeport** 2018 - 2022  
Bachelor of Science in Electrical and Computer Engineering  
Minor in Mathematics  
GPA: 3.99

## TECHNICAL SKILLS / PROGRAMMING LANGUAGES

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Computer Architecture:

GEM5, VHDL, High Performance Computing.

VLSI Design:

Cadence HSPICE, Synopsys PrimeTime, Synopsys Design Compiler, logic synthesis, placement, routing and timing verification.

C, Java, MATLAB, Design and Optimization of High-Performance Software, Data Structures, Algorithms, Linux, Microsoft Office, Circuit Design and Analysis, NI Multisim.

## EXPERIENCE

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**Graduate Research Assistant** Sept 2022 - Present  
Drexel University - Drexel VLSI and Architecture Lab (VANDAL) *Philadelphia, PA*

- Investigating system level interconnects for 2D, 2.5D and 3D Integrated Chips.
- Reviewing the literature on Network-on-Chips and exploring in-package communication for multi-chip module.

**Graduate Teaching Assistant** Sept 2022 - Present  
Drexel University - Department of Electrical and Computer Engineering *Philadelphia, PA*

- Foundations of Electrical Circuits Lab, Sophomore Level, Fall 2022.
- Design with Microcontrollers Lab, Sophomore Level, Winter 2023.

**Teaching Assistant** Jan 2022 - May 2022  
University of Bridgeport - Department of Electrical Engineering *Bridgeport, CT*

- Tracked attendance, graded assignments, and calculating grades.
- Communicated and coordinated with the instructor to assist in lecture plans.

**Lab Assistant and Chemistry Tutor**  
University of Bridgeport - Chemistry Department

Jan 2019 - Dec 2021  
*Bridgeport, CT*

- Prepared and maintained preparations for the experiments.
- Cleaned and maintained work area and all lab equipment and supplies.
- Designed and implemented exercises and activities to facilitate student's academic improvement.

**Circuit Analysis Lab Instructor**  
University of Bridgeport - Department of Electrical Engineering

Jan 2019 - Dec 2021  
*Bridgeport, CT*

- Managed and prepared laboratory sessions; assisted the professor in lectures.
- Assisted and helped students in designing circuits and performing simulations.
- Assisted students with writing laboratory reports.

**Summer Associate**  
University of Bridgeport - Office of Housing and Residential Life

May 2020 - Aug 2020  
*Bridgeport, CT*

- Read incoming materials, determined how they should be filed and file them according to guidelines based on alphabetical, chronological, or numerical order.
- Created and modified students' records with complete accuracy daily.
- Designed and modified filing systems and implemented new ideas to ensure records are easy to locate and maintain.

## **RELATIVE COURSEWORK**

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### Graduate Courses

- ECEC-571: VLSI Design (Drexel University).
- ECEC-574: ASIC Design (Drexel University).
- CS-540: High Performance Computing (Drexel University).
- CS-521: Data Structures and Algorithms (Drexel University).
- CPEG-575: Robotic Process Automation (University of Bridgeport).
- ELEG-588: Introduction to Autonomous Vehicles (University of Bridgeport).

### Undergraduate Courses

- CPEG-312: Computer Organization (University of Bridgeport).
- CPEG-387: Embedded Systems Design (University of Bridgeport).

## **PROJECTS**

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**Disability Assistant System Using Brain-Computer Interface and EEG Signals - *Python, EMOTIV BCI-OSC, Arduino.***

- Getting brain signals using an EEG device and analyzing these signals to control objects to help improve the quality of life for people with movement disorders.

- Synthesize and process brain signals using a brain-computer interface (BCI) that allows controlling smart devices using brain activity.
- Allow active control over devices using trained thoughts and movements of facial and eye muscles.

**Arduino Based Smart Lock Using RFID - *Arduino IDE, RFID RC522, Arduino UNO.***

- Smart Lock Using RFID - *Arduino IDE, RFID RC522, Arduino UNO.*
- Used Radio Frequency Identification (RFID) technology to implement a smart lock using Arduino UNO.
- Achieved a low-cost device that reduce the risk of COVID-19 transmission.

**Elderly Pill System - *Python, Automation Anywhere, Arduino IDE, Arduino UNO.***

- The application helped elderly patients with taking their pills and acted as a way of connection between doctors and elderly patients.
- The application reduced the effects of forgetting to take pills or taking them more than needed.

**Vending Machine - *Altera FPGA, MPLAB, VHDL.***

- Achieved fully-functioning vending machine software.

**EXTRA-CURRICULAR ACTIVITIES**

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President Jan 2020 - May 2022  
 University of Bridgeport, Institute of Electrical and Electronic Engineers (IEEE) *Bridgeport, CT*

- Led the IEEE Undergraduate Student Branch overall.
- Represented the club in General Body meetings and Executive Board meetings and delegating responsibilities for various tasks.
- Organized various events, workshops, field trips, and UB Hackathon.

Chief Financial Officer Aug 2021 - May 2022  
 University of Bridgeport, Student Government Association *Bridgeport, CT*

- Chairperson of the Financial Allocation Meetings of SGA.
- Managed the financial actions of the organization.
- Organized different projects and events that enhanced the student life on campus in collaboration with other departments (Free Dental Access for Students - Knight's Pantry - Recreation Center Improvement).

Volunteer, Leonard Education Organization.

Volunteer, Green Village Initiative (Bridgeport, CT).

Student Government Association, School of Engineering Senator (2020 - 2021).

Student Government Association, International Students' Representative and Educational Committee Chair (2019 - 2020).

Student Ambassador, University of Bridgeport

University of Bridgeport, Institute of Electrical and Electronic Engineers Branch, Vice President (2018 - 2019).

Hosting the Annual National UB Hackathon at the University of Bridgeport (2019).

### **AWARDS / CERTIFICATIONS**

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- University of Bridgeport Global Leaders of Tomorrow Full Scholarship, Four Years.
- President's Award, University of Bridgeport 2022 Student Leadership Awards.
- CTNext Governor's Innovation Fellowship (2022): Selected among 400 applicants.
- University of Bridgeport 2022 Faculty Research Day Undergraduate Student Poster: Second place.
- President's List Distinction: 2018-2022
- Outstanding Involvement by a Junior, University of Bridgeport 2021 Student Leadership Awards.
- School of Engineering Academic Accomplishment Award 2020-2021 and 2021-2022.