

AROUNEY (ALLIE) SITHTAPHONE

401-744-1401 | arouney@arouney.com | arouney.com

EDUCATION

University of Rhode Island

Kingston, RI

Bachelor of Science in Biomedical Engineering Candidate

Expected May 2027

Coursework: Foundations of Engineering I & II, Computer Programming, Cyber Security Technology, The Joy of Programming

Societies & Roles: Resident Academic Mentor (RAM), Institute of Electrical and Electronic Engineers (IEEE), Society of

Hispanic Professional Engineers (SHPE), IEEE Engineering in Medicine and Biology Society (EMBS)

Woonsocket High School | Woonsocket Area Career and Technical Center

Woonsocket, RI

High School Diploma | P-TECH Certification in Computer Science and Game Design

September 2019 - May 2023

SKILLS

Technical Skills: C++, HTML/CSS, Python, Excel, ArduinoIDE, Fusion 360, SOLIDWORKS

LAB & RESEARCH EXPERIENCE

Undergraduate Research Lab Assistant

Kingston, RI

University of Rhode Island Wearable Biosensing Lab

March 2024 - Present

- Prototype a vital-sign-collecting wearable armband using Fusion 360, silicone molding, textiles, & 3-D printing, iterating over 3+ prototypes
- Develop comprehensive testing protocols to collect electrocardiogram (ECG) and electrodermal activity (EDA) signals from participants
- Present research findings to peers and faculty, demonstrating technical and communication skills

WORK EXPERIENCE

Extern

Marlborough, MA

Boston Scientific | National Action Council for Minorities in Engineering (NACME)

August 2024

- Participated in structured externship program, acquiring in-depth knowledge of Boston Scientific's strategic planning and endoscopy division
- Interacted with chapter leaders from various Employee Resource Groups, discussing diversity and inclusion initiatives
- Explored industry trends and career development opportunities, gaining valuable insights into the field
- Observed practical applications of medical devices and technologies in the Urology Immersion Lab, enhancing understanding of functionality and impact

High School Coordinator

Kingston, RI

University of Rhode Island SMILE Program

March 2024 - Present

- Develop and implement engaging weekly STEM activities for an after-school club, fostering a hands-on learning environment for high school students from marginalized communities
- Collaborate with educators and community partners to ensure activities are inclusive, culturally relevant, and aligned with educational standards

Contract Web Developer

Remote

Each Day Communications

September 2022 - May 2024

- Spearheaded the creation and maintenance of websites using versatile Content Management Systems (CMS) including Squarespace and WordPress, enhancing brand visibility and online engagement
- Collaborated with over 5 clients and stakeholders to gather and refine project specifications, ensuring alignment with precise technical requirements
- Ensured cross-browser and cross-device integration of features, significantly improving web accessibility and user satisfaction

Summer Teaching Fellow

Cumberland, RI

Generation Teach (AmeriCorps Service)

July 2022 - August 2022

- Developed and delivered grade-appropriate engineering curriculum to classes of 15-30 third and fourth grade students
- Planned and coordinated school-wide events in collaboration with team members

Summer Program Instructor

Woonsocket, RI

Community Care Alliance | The Harbour Youth Center

July 2020 - August 2021

- Curated a targeted 5-week engineering and public health curriculum for 12 local youth (ages 14-18)
- Secured a \$3,000 grant from the National Center for Women in Information Technology (NCWIT) to establish a virtual STEM program for 10 local teenage girls (ages 14-19)

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Zero Robotics Summer Coding Technician

Community Care Alliance | The Harbour Youth Center

Woonsocket, RI

July 2019 - August 2019

- Assisted in SPHERES (Synchronized Position, Hold, Engage, Reorient, Experimental Satellite) programming and research through collaboration with Massachusetts Institute of Technology (MIT) and Department of Defense (DOD)
- Optimized satellite maneuverability to navigate through space debris dense environments, enhancing collision detection and interception accuracy using C++
- Competed in National Aeronautics and Space Administration (NASA) Zero Robotics program as part of a team, achieving 2nd place in Rhode Island

PROJECTS

Flu Vaccine and Health Literacy Application

CVS Health | Woonsocket Area Career and Technical Center

Woonsocket, RI

October 2022 - January 2023

- Designed a user-friendly application to promote health literacy and flu vaccination, ensuring accessibility for all age groups
- Created engaging character and app designs to enhance user experience and interaction within game
- Developed a dynamic website using HTML/CSS and employed strategic marketing techniques to expand the application's reach

3D-Printed Robotic Hand Prosthetic

SkillsUSA | Woonsocket Area Career and Technical Center

Woonsocket, RI

October 2019 - March 2020

- Conducted thorough research and development, resulting in the design and 3D-printing of a lifelike prosthetic hand
- Programmed intricate hand and joint movements with Arduino, C++, and DC motors, enhancing the prosthetic's functionality