

Ethan Ricks
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EDUCATION

Jackson State University, Expected April 2025 Jackson, MS
Bachelor of Science in Computer Engineering; 3.97/4.00 GPA

Spring 2023 – Fall 2024 **Techwise** Jackson, MS

Student

Participating in National Software Engineering program supported by Google to develop undergraduate students into Software Engineers.

- Course 1 - Lectures in Python fundamentals, developed game logic for Hide and Go seek game for Course 1 project (Unity and C#)
- Course 2 - Lectures in Web Development using HTML, CSS, and Javascript, developed backend processes and data models for users of Professional Development web application using NodeJS, MongoDB, and ExpressJS for Course 2 Project
- Course 3 – Lectures in Web System Design with Typescript and React framework. Also explored different concepts such as Docker and containerization, APIs, and Testing (Vite, Jest, Cypress). Developed Messaging feature for Social Media Application using Typescript, React, and Appwrite Database API for Course 3 Project

RELEVANT COURSEWORK AND SOFTWARE PROFICIENCIES

Python • C++ • Linux / Bash • GIT • Object-Oriented Programming • Data Structures & Algorithms • Algorithm Design Analysis • Red Hat Linux (In-Progress) • Embedded Systems / Embedded C • Javascript • Typescript • NodeJS • ExpressJS • MongoDB • React

WORK EXPERIENCE & PROFESSIONAL DEVELOPMENT

Summer 2024 **Engineering Research and Development Center (ERDC)** Vicksburg, MS
Computer Engineering Trainee

Summer Internship working with the Coastal Processes Branch of the Coastal Hydraulics Laboratory to implement Numerical Technology Modernization Strategy

- Developing Python/Shell Scripts to Implement Verification and Validation testing for CSTORM Test Suite.
- Revised Scripts to Enhance Portability of Test Suites for different High Performance Computers at ERDC

Summer 2023 – January 2024 **Engineering Research and Development Center** Vicksburg, MS
Computer Engineering Trainee

Summer Internship working with the Coastal Processes Branch of the Coastal Hydraulics Laboratory to implement Numerical Technology Modernization Strategy

- Creation of Python/Shell Scripts to Implement Verification and Validation Testing for 33 ADCIRC Test Suites.
- Script development involved flexibility for Hot/Cold Start, NetCDF/Ascii Test Suites which utilized different Directory Hierarchies, File Types, and Modules
- Debugging of Python/Shell Scripts to Implement Verification and Validation Testing for 2 STWAVE Test Suites.

Summer 2023 **Brookhaven National Laboratory** Brookhaven, NY
Student

Participating in the Co-design Center for Quantum Advantage (C2QA) Virtual Quantum Computing Summer School

- Creating Jupyter Lab Notebooks from Scientific Computing Perspective to accomplish tasks such as solving Differential Equations, Data Visualization, and simulating Quantum Circuits
- Lectures about advanced Physics and Mathematics concepts to create foundation in knowledge of Quantum Computing such as Monte Carlo Methods, Fourier Analysis, and Quantum Algorithms

Summer 2022 **Engineering Research and Development Center** Vicksburg, MS
Computer Engineering Trainee

Summer Internship working with the Coastal Processes Branch of the Coastal Hydraulics Laboratory to implement Numerical Technology Modernization Strategy

- Creation of Shell Scripts to Implement Automated Regression Testing on Serial ADCIRC Test Suite.

ACTIVITIES & AWARDS

JSU IEEE Student Branch Chair (Spring 2024 – Present) | Robotics Club Secretary and Vice President (April 2022 – April 2023) | Louis Stokes Mississippi Alliance for Minority Participation President (February 2022 – February 2023) | Association for Computing Machinery Treasurer (November 2021 – April 2022) | 5x President's List | Dean's List