

# Kailash Muthu

kailashm2212@gmail.com | 919.986.6484 | kailash@unc.edu  
github.com/kailash-unc | kailashmuthu.me | linkedin.com/in/kailash-muthu/

## EDUCATION

### UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

BACHELOR OF SCIENCE IN COMPUTER SCIENCE  
Aug 2020 - Present (May 2023) | Chapel Hill, NC  
Honors Carolina  
Good Standing - Dean's List (All Terms)  
GPA: 3.92 / 4.0

## RELEVANT COURSEWORK

### UNDERGRADUATE

Analysis of Data Structures  
Algorithms and Analysis  
Modern Web Programming  
Foundations of Software Engineering  
Digital Logic and Computer Design (*Learning Asst.*)  
Computational Photography  
Machine Learning

## TECHNICAL SKILLS

### LANGUAGES

Proficient with:  
Python 3 • Javascript • Java • C • HTML/CSS

### FRAMEWORKS & TOOLS

Node.js • React.js • Git • Django • Express • Mongoose  
MongoDB • Flask • Heroku • Matlab • IMB Z

## WORK EXPERIENCE

### TRUIST

#### SOFTWARE ENGINEER

Dec 2022 - Present (May 2023) | Raleigh, NC

- Work with **Azure** and **Azure DevOps**, and contribute to continuous integration and delivery pipelines
- Use **AngularJS** to deliver high-quality software releases and consistently meet project deadlines
- Refactor applications to be **Cloud Native**

### UNC COMPUTER SCIENCE DEPARTMENT LEARNING ASSISTANT

Aug 2022 - Present (May 2023) | Chapel Hill, NC

- Assist Professor Montek Singh in teaching **COMP 541 - Digital Logic and Computer Design** to a class of **over 40 students**
- Lead **10+ hours of weekly office hours** and review sessions, providing individualized support to improve understanding of course material
- Teach students to design a **MIPS CPU** in **System Verilog** and run a program in **MIPS Assembly**

## TECHNICAL PROJECTS

### BRIEF URL | WEBSITE, GITHUB

Winter 2022 | Node.js, Express.js, Mongoose, MongoDB

- Developed a URL Shortener application using **Node.js** and **Express.js**, handling all routing and implementing a scalable URL shortening system
- Used **MongoDB** and **Mongoose** to store and manage data for the application
- Generated **unique, 6-character identifiers** (UUIDs) using a 62-character bank, to designate the shortened URL

### SORT ALGORITHM VISUALIZER | WEBSITE, GITHUB

Fall 2022 | React.js, Javascript

- Created a **React** application that visualizes the step-by-step process of sort algorithms
- Visualized **4 different sort algorithms**: Merge Sort, Quick Sort, Heap Sort, and Bubble Sort

### OASIS | GITHUB

Spring 2022 | React.js, Django, Python, Javascript

- Created a social media application using **Django** and **React.js**, including models for storing tweets, dynamic routing, and forms for creating and deleting tweets
- Implemented authentication and permissions using **Django Rest Framework**, decorating views and handling Ajax requests
- Developed functional components in React to handle actions such as creating, liking, and deleting tweets, including handling forms and updating the component state

### THIRUKKURAL FINDER | WEBSITE, GITHUB

Fall 2021 | Flask, Python

- Developed a **Flask** application that generates over **1300+ poetic couplets** called Kurals written by the Tamil poet Thiruvalluvar
- Built a **Python** script that accesses an **API** containing Kurals and returns the Kural based on an input number provided through textbox or voice recognition

### AMAZON WEB SCRAPPER | APP, GITHUB

Spring 2021 | Python

- Developed an Amazon.com Scraper application that returns the top search results through a **Discord bot**, using **Python** and web scraping techniques with the **BeautifulSoup** package
- Designed a **parsing algorithm** to extract relevant product information from Amazon.com's front-end code, including the product title, price, image, ratings, number of ratings, and link to the product

## CERTIFICATIONS

Back End Development and APIs	freeCodeCamp
IBM Z Xplore - Concepts	IBM
Software Engineering Virtual Experience	JP Morgan
Become a Web Developer	LinkedIn