Subiksha Vaidhyanathan

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EDUCATION

Bachelor of Science in Computer Science   **April 2026**
Wright State University, Fairborn, Ohio   GPA:3.5/4.0

TECHNICAL SKILLS

Programming Languages - CSS, HTML, C++, JAVA, AngularJS, Python, Racket, JavaScript, Typescript, SCSS, Bootstrap
Databases – MySQL, Firebase
Operating Systems - Linux, Windows, Ubuntu
Code Repositories & Version Control Tools - Git, Git Hub
IDEs - Visual Studio Code, JDK, IDLE, PyCharm

COURSE WORK

Object Orientated Programming (JAVA), Data Structures and Algorithms, Operating Systems Internals and Designs, Intro to Cyber Security, Applied Machine Learning, Intro to Software Engineering, Cyber network security, Security attacks and Defenses

WORK EXPERIENCE

Undergraduate Teaching Assistant, Wright State University   **August 2023 - Present**

- Reinforce concepts of **Object Orientated programming** (CS 1180 and CS 1181) for students through weekly lab sessions.
- Mentoring students in accomplishing their weekly produced Lab problems in **JAVA** programming.
- Offer students **demo applications** in class during lab sessions to help them comprehend the idea better.
- Provided study management tools and guidance to the students, for their weekly assignments and projects.
- Assessed weekly tasks and provided students with helpful criticism to promote their development and Comprehension.

Intern, Expeditors International   **June 2024 – July 2024**

- **Developed a Transport Management System** with a **home page, sign-in page, dropdown menus, and dynamic content** using **HTML, CSS, JavaScript, AngularJS, and Bootstrap**.
- **Implemented front-end components** with responsive design and interactive UI elements to enhance user experience.
- **Integrated SQL-based tracking and monitoring system**, enabling efficient customer activity management.
- **Optimized performance and fixed critical bugs**, improving application stability and user experience.
- Gained expertise in the **Software Development Life Cycle (SDLC),** client-server architecture, and AngularJS through weekly technical learning sessions.

PROJECTS

Master Chef   **January 2025**

- Developed a *Chef's website* where the **Sign-In page** was designed using a **hashing algorithm** to encrypt the passwords.
- The user would be able to add the items in the pantry either manually or by **image uploading algorithm**.
- It is a multi-user website with **firebase** as the **database** connected to the pages to store their data.
- Created **user-interactive** components with **HTML** to create **recipes** with **timer** components.
- The Shopping cart of the page is a section where missing items from the pantry are automatically updated.

Crime Prediction System   **April 2024**

- Developed a crime prediction system using **Neural Networks and Linear Regression** to forecast crime locations and times in Cincinnati, Ohio based on historical crime data.
- **Implemented model comparison functionality**, demonstrating accuracy differences between **Linear Regression and Neural Networks** on crime datasets containing location, time, date, and severity.
- **Processed and analyzed large CSV datasets**, extracting key crime patterns to train predictive models using **Python (NumPy, Pandas)**.
- **Optimized data processing pipeline**, improving prediction accuracy and computational efficiency based on dataset complexity.

Password Cracking - Java   **April 2023**
- Constructed an object orientated programming project which generates all possible passwords to extract the contents of a password protected file in the least time possible.
- Developed a user-friendly program which generates all possible 3 and 5 letter passwords and generates the time taken to extract the contents of the file.
- Implemented a robust backend Java program which manages to find the correct passwords by experimenting with all the passwords at the same time using multi-threading to be time efficient.

Scramble - Java   **October 2022**
- Built a word based on the New York "Spelling bee" game.
- Players would be given 7 letters in a scrambled manner from a word which has 7 unique letters.
- Players would be awarded points for every existing word from the dictionary which has a minimum of 4 letters.
- Players also have a option of listing the words they have already guessed, scrambling the letters again, entering a new word and ending the game.

LEADERSHIP SKILLS/ VOLUNTEER WORK

- **Vice president of Recruitment – National Residence Hall Honorary (The Wright Chapter)**
  - Winter Coat Drive – Women's shelter
  - Loving Linus – Blanket donation to Dayton's children shelter
- **Director of Advocacy – Residential Community Association (Community Council)**
  - Advocating on behalf of residential students for their accommodation, safety etc.
- **Member of Student Women Engineers Association**
  - Hosting events that help women engineers advocate themselves to the community
  - Resume workshops and event planning
- Represented Wright State at OCWiC (Ohio Computing Women's Conference) 20th anniversary for ACM-women.