

# NIKHIL VISHNOI

[nikhilvishnoi23@gmail.com](mailto:nikhilvishnoi23@gmail.com) | 089465781

[linkedin.com/in/nikhil-vishnoi-swd](https://linkedin.com/in/nikhil-vishnoi-swd) | [github.com/vazuka](https://github.com/vazuka) | [nikhilv.me](https://nikhilv.me)

## EDUCATION

University College Dublin, Co. Dublin — **B.Sc. in Computer Science**

Sep. 2022 - May. 2026

- GPA: 3.73/4.00
- Coursework Autumn 2024: CS30010 Automata Theory, CS30030 Artificial Intelligence, CS30940 Information Security, CS30010 Multi-Paradigm Programming
- Coursework Spring 2025: CS30770 Programming for Big Data, CS30860 Web Development, CS30870 Graph Algorithms
- Organizations: SysAdmin@Netsoc(CS Society at UCD), Enactus Entrepreneurship Club, Student Union, CS Mentor
- Honors/Awards: Class Representative, Student Leader – College of Science, Student Ambassador, Ad Astra Scholar

## SKILLS

- **Professional Skills:** Project Management, Team Leadership, Communication, Strong Self-Discipline, Agile
- **Softwares/Programs:** Jira, Tableau, Figma, Wix, Xcode, Atom, Linux OS, Mac OS, Windows OS, Git, Microsoft Office
- **Programming Languages:** C, C++, C#, Bash Scripting, Python, HTML, JavaScript, CSS, Java, SQL, Go, Automation

## TECHNICAL EXPERIENCE

Tenable, Technology Intern — **Tenable Ireland HQ, Dublin**

Jun. 2024 - Sep. 2024

- Executed data management tasks within the Digital Solutions team, leveraging Python, SQL, and Bash scripting to enhance operational efficiency.
- Spearheaded a creative, company-wide initiative to integrate ServiceNow as Tenable's new IT service management and automation platform.
- Collaborated with teams across Vulnerability Management, CI/CD, and Service Operations, and led UAT testing and data migration efforts for the ServiceNow integration.

**Key Technologies:** Python, SQL, Bash, ServiceNow, Jira, FreshWorks, Git.

Netsoc — **CS Society @ UCD, Sys Admin** — **UCD Belfield, County Dublin**

Nov. 2023 - Apr. 2024

- Administered and maintained a robust server infrastructure with 64 cores, 128 threads, and 400GB RAM, ensuring high availability and performance for over 500 society members.
- Designed, deployed, and managed a range of services including web hosting, containerized environments, and version control systems, enabling members to develop and host projects seamlessly.
- Developed automation scripts for routine tasks, such as backups, updates, and system monitoring, reducing manual intervention and minimizing downtime.

**Key Technologies:** Linux, Docker, Grafana, Git, Bash, Python.

School of Computer Science, Research Assistant — **UCD Belfield, County Dublin**

Oct. 2023 - Feb. 2024

- Assisted in the development and optimization of Parallel Quick Sort and Parallel Merge Sort algorithms, working alongside a PhD researcher to explore their efficiency in multi-core processing environments.
- Designed and implemented parallel sorting algorithms in C using MPI and OpenMP, leveraging multi-threading and process parallelism techniques to achieve significant improvements in computational efficiency.
- Gathered and analyzed runtime data using descriptive statistics, hypothesis testing, and regression analysis to assess and compare the performance of sorting algorithms.

**Key Technologies:** C Programming, MPI, OpenMP, Python, MATLAB, Git

## PROJECT EXPERIENCE

Wordle Solver — Wordle Solving Algorithm (**UCD**)

- Developed a sophisticated algorithm that consistently solved the Wordle puzzle in under 4 guesses, outperforming all other algorithms in the Computer Science class 2023-2024.
- Implemented Huffman Trees to efficiently compress the dataset dictionary, reducing memory usage and speeding up the word selection process. Designed a scoring system using hashmaps to assign frequency-based points to each word, optimizing the selection process based on word likelihood and letter distribution. Fine-tuned the algorithm by integrating frequency analysis and letter-position strategies, ensuring high accuracy and minimizing the number of guesses needed to reach the target word.
- Achieved the highest ranking in class for algorithm performance, recognized by faculty for innovative use of data structures and algorithm design.

**Key Technologies:** Java, Huffman Trees, Hashmaps, Data Structures, Algorithms

LeetCode Problems Recommender — LeetCode Recommendation program (**Personal Project**)

- Developed an intelligent LeetCode problem recommender that suggests similar problems to users based on their past activity, with recommendations that gradually increase in difficulty to encourage continuous learning and skill development.
- Scraped the entire LeetCode problem set, including associated URLs and metadata, using BeautifulSoup4, and built a comprehensive local database for efficient recommendation generation. Integrated an email notification system that automatically sends users daily or weekly problem recommendations, helping them stay engaged and progress steadily through increasingly challenging problems.
- Designed a recommendation algorithm that dynamically adjusts the difficulty of suggested problems, ensuring that users are consistently challenged without being overwhelmed. Optimized data storage and retrieval to ensure fast processing of large datasets and quick generation of personalized recommendations. Using descriptive statistics, hypothesis testing, and regression analysis to assess and compare the performance of sorting algorithms.

**Key Technologies:** Python, BeautifulSoup4, SQLite, Email Automation, Web Scraping, Algorithms