

Education

University of Virginia, Charlottesville, VA

August 2021 – May 2025

School of Engineering, BS, Computer Science (Cumulative GPA: 3.99 | Major GPA: 4.00)

Relevant Coursework: Advanced Software Development, Operating Systems, Data Structures and Algorithms, Advanced Algorithms, Computer Systems and Organization, Discrete Math, Multivariable Calculus, Linear Algebra

Clubs: Computer and Network Security, Data Science and Analytics, Astronomy

Experience

UVA Biocomplexity Institute, Charlottesville, VA

June 2022 - Present

Research Intern- Network Systems Science and Advanced Computing Division

- Modeled spatio-temporal patterns in anti-microbial resistance using unsupervised learning and state-transitions.
- Engineered tools in Python for data cleaning, visualization, and data mining on data sets with over 3 million records.
- Constructed spatial networks of over 200 regions in NetworkX to analyze spread patterns across 14 years in the U.S.
- Automated job deployment on a high-performance computing cluster using Slurm and bash scripting.
- Presented research to Dr Eili Klein, a senior researcher at Johns Hopkins University, and at the C4GC symposium.

Publicis Sapient, India (Remote)

May 2022 - July 2022

Database Management Intern

- Integrated MySQL databases with a backend Java application using JDBC API to streamline data injection and queries.
- Implemented a management information system in Microsoft SQL Server to process the data of over 2000 employees.
- Developed 12 packages to perform transformations and event handling using SQL Server Integration Services (SSIS).
- Presented a Power BI dashboard and SSIS packages to managers for use in future business intelligence solutions.

Carolina Engineering, Turning, and Steel, Sharjah, UAE

May 2019 - May 2020

Engineering Intern

- Developed, tested, and deployed a low-cost, Arduino-based energy management system for factory housing units.
- Integrated sensors and hardware to regulate HVAC systems with embedded software written in C for Arduino.
- Created a proprietary algorithm yielding 20% power reduction and reducing greenhouse emissions by 35%.

Projects

Tempo: iOS Social Media Platform

August 2022 - Present

Skills: SwiftUI (Frontend), Firebase (Backend), UI/UX Design, Collaborative Coding

- Developing a platform for users to discover and share music and podcasts from any app (Spotify, Apple Music, etc.).
- Implementing features to create group chats, collaborate on playlists, and repost, like, comment, and share content.

Photography Blog Website | [GitHub Project](#) | [Website](#)

July 2022 – October 2022

Skills: React, HTML, CSS, JavaScript, CI/CD Pipeline

- Developed a photoblog website in React and created REST API to query MySQL database using Express and Node.js.

Leadership & Activities

UVA Engineering, Charlottesville, VA

August 2022 - Present

Computer Science Teaching Assistant

- Guided 470+ students on x86-64, C/C++, and hardware while teaching CS 2130: Computer Systems and Organization.
- Held office hours and lab, graded and proctored exams, resolved questions on Piazza, wrote and graded assignments.

Pure Hearts NGO, Gurgaon, India

April 2018 - December 2021

Head of Initiatives

- Set up an online school for 60+ low-income students during the COVID-19 pandemic and raised \$3,000 for supplies.
- Organized 6 waste management drives supported by city (Municipal Corporation) for low-income neighborhoods.

International Journal of Research and Analytical Reviews, Gurgaon, India

November 2020 - April 2021

Co-Author

- Published "Big Tech Stock Predictions Using Recurrent Neural Networks" with Dr. (Prof.) Sarvjeet Herald.

Technical Skills & Interests

- Technical: Java, Python & Data Science, HTML, CSS, JavaScript, C, Git, Microsoft Office Suite, MATLAB, Electronics
- Languages: English (Native), Hindi (Native)
- Interests: Stargazing, Trekking, Guitar, Photography, Creative Writing