

# Ravnoor Singh

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## 🎓 EDUCATION

**Wright State University**, Master of science,  
Computer Science  
08/2024 - present | Ohio, USA

**Guru Nanak Dev University**, Bachelor of  
Technology in Computer Science and  
Engineering [GPA 4.00/4.00]  
08/2020 - 06/2024 | Amritsar, India

## 🧠 SKILLS

### Programming Languages/ Software:

C, C++, Java, Python, Javascript, C#, HTML, CSS,  
SQL, JSON, React.js, Node.js, Express.js, Linux,  
REST, ASP.Net, Docker, NLP, Bash (shell scripting),  
Postman, Putty, Microsoft Word, Microsoft excel.

### Packages:

Scikit-Learn, Numpy, Pandas, Matplotlib, Natural  
Language Tool Kit, Tensorflow, Google Colab,  
Jupyter Notebook, Kaggle, EJS, Bootstrap,  
Tailwind CSS.

### Databases:

SQL Server, Oracle, MySQL, MongoDB, MongoDB  
compass.

### Cloud Services:

AWS (Amazon Web Services).

### IDE:

Visual Studios, IntelliJ IDEA, NetBeans, Selenium  
IDE, PyCharm, Vim editor.

### Version Control System:

Git, Github.

### Soft Skills:

Great communicator, Teamwork, Leadership  
qualities, Time management, Decisionmaking,  
Focus driven, Problem-solving, Fast learner.

## 📋 SUMMARY

- Currently pursuing a Master's in Computer Science with 4+ years of programming experience in C++, JavaScript, and java.
- Developed and deployed multiple projects on the MERN stack (MongoDB, Express.js, React.js, Node.js), including RESTful services, database management, authentication and authorization.
- During my intern period, I focused on using machine learning to anticipate early brain stroke in patients. Worked on natural language processing for text-based data analysis.

## 💼 PROFESSIONAL EXPERIENCE

**Research Intern**, Guru Nanak Dev University  
01/2024 - 06/2024 | Amritsar, India

- Learned and implemented machine learning techniques to contribute to ongoing research projects.
- Collaborated with the research team on 2 papers, contributing to data analysis and model development.
- Submitted a paper to *Scientific Reports* by Nature, showcasing innovative research and findings.

**DSA Scholar Intern**, Tathastu Twowaits ✉  
11/01/2021 - 12/01/2021

- Solved and explained **Data Structures and Algorithms (DSA)** problems to students, enhancing their understanding of core concepts.
- Created and designed **assignments** focused on key DSA topics to aid in student learning.
- Addressed and **cleared doubts** from students, providing guidance and support to help them.

## 📁 PROJECTS

**SmartHealth Early Anticipation**, (Research Work)

- Developed multiple robust models to predict brain stroke, heart attack, Parkinson's disease, Alzheimer's disease, and cancer, based on geographic, lifestyle, genetic, past-history factors.
- Performed extensive data analysis and preprocessing, optimizing the datasets through missing data handling, feature engineering, and normalization/scaling.
- Applied advanced machine learning algorithms such as Random forest, Decision trees, SVM, KNN and implemented ensemble learning techniques including Boosting algorithms (AdaBoost, XGBoost), and hard voting, combining multiple models to enhance prediction accuracy and robustness, particularly for brain stroke detection.
- Utilized cross-validation and hyperparameter tuning to fine-tune the models, improving accuracy, sensitivity, and specificity for brain stroke prediction.

## PUBLICATION

A research paper on Optimizing Early Diagnosis by Integrating Multiple Classifiers for Predicting Brain Stroke and Critical Diseases submitted to Scientific Reports and is currently under revision.






## LANGUAGES

English	<div></div>
Punjabi	<div></div>
Hindi	<div></div>
Urdu	<div></div>

## INTERESTS

- Playing online computer games.
- Playing table tennis and badminton.
- Community Service.
- Trekking and hiking.
- Making craft models using paper and ice creams sticks.

## ACHIEVEMENTS

- Technical Head at Computer engineering student society 2022-2023.
- Contributor at an open source event "GirlScript Summer of Code 2022" . 
- Achieved 2359 rank in weekly contest 356 on leetcode. 
- Attained 2972nd rank in the Google Kick Start Round - G 2022. 
- Secured 381st Rank in Codechef Div-2 starters 99 codechef. 
- Completed Cloud Engineering track and machine learning track. 

## EXTRA CURRICULAR ACTIVITIES

- Volunteered at the Cincinnati Festival of Faiths by sharing information about our culture with guests from different faiths and cultures.
- Organised a coding as well as gaming event in Polaris TechFest at GNDU in Nov 2022.

## ScreenSavvy

- Designed and developed a secure full-stack web application for movie enthusiasts to sign up, sign in, comment, and rate movies.
- Build with ReactJS , ExpressJS , NodeJS , MongoDB , HTML , CSS , MailTrap , Cloudinary
- Added profanity filter feature to maintain a positive user experience by preventing the usage of inappropriate language in comments.
- Implemented robust user authentication with email verification using Mailtrap and incorporated.
- JWT (JSON web tokens) for managing user sessions. Utilized Cloudinary to efficiently upload and store movie character images and trailers.
- Developed admin Dashboard with restricted access, allowing authorized administrators to manage movies, movie characters, and genres effectively.

## WorkoutWizard

- Developed using ReactJs , Material UI , Exercisedb and Youtube Search and Download API.
- Built a Completely Responsive Gym Website that shows around 1300 Exercises according to the category chosen and exercises information and GIFs related to it.
- Used Material UI to add pagination and ensure modern design and added videos to provide step by step guide for each exercise along with search feature to search any specific exercise.

## Inshorts

- Developed a news application using React.js and the News API to display top headlines categorized by genres, enhancing user engagement.
- Implemented dynamic fetching of articles, allowing users to click headlines to view detailed content for an immersive reading experience.
- Utilized Axios for API calls and React Router for seamless navigation, ensuring a responsive layout compatible across devices.

## SkyWatch

- Made responsive website which fetches real-time weather data based on user input using NodeJS , ExpressJS , EJS, Weather API.
- Used Ejs to ensure dynamic content rendering for different cities.

## OneShot Registration

- Developed a vaccination slots booking system using C++, allowing users to book vaccination slot.
- Ensured unique registration by allowing each user to register with their mobile number only once to ensure efficient slot allocation thus preventing duplicates through file handling.