# **KRISHIV MAHAJAN**

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#### **EDUCATION**

Sat Paul Mittal School, Ludhiana - Grades 9,10,11 and 122021-PresentRelevant Coursework: Physics, Mathematics, Economics, English, Computer Science

Sacred Heart Convent School, Sarabha Nagar, Ludhiana 2011-2021

## STANDARDIZED TESTING

- SAT-1500 (790 Math, 710 English)
- IELTS 8.0 (Listening 8.5, Reading 8.5, Writing 7.5, Speaking 8.0)

## ACADEMIC HONORS & AWARDS

- Awarded Merit Certificate for being in the top 5% of the batch in Grade 9, Grade 10, and Grade 11.
- <u>Secured scholarship for Academic Excellence in the Grade 10 Indian Board Examination (ICSE).</u> (2023)
- Awarded the Most Admired MedTech Start-Up in 2022 by Shri Chetan Singh Jauramajra, Minister of Health and Family Welfare, Government of Punjab. (2022)
- <u>Awarded a Letter of Appreciation from Shri Jai Singh Rouri, Deputy Speaker, Punjab Legislative</u> <u>Assembly, Government of Punjab. (2024)</u>
- Awarded the Most Admired Child in Innovation and Entrepreneurship in the presence of Smt. Savitri Thakur, Minister of Child and Welfare Development, Minister of State, Government of India. (2024)
- Awarded the Most Admired CutiCure- The Innovative Healthcare Solution by Dr. Baljit Kaur, Cabinet Minister for Women and Child Development, Government of Punjab. (2024)
- Awarded a Letter of Commendation from Dr. Kapil Dua, Former President, of the International Society of Hair Restoration Surgery. (2024)
- Awarded a Letter of Commendation from Dr. Monica Gulati, Executive Dean, Lovely Professional University. (2024)
- Achieved a Black Belt in Karate by the Goju Ryu Okinawakan Karate Do Kyokai Association. (2022)

# **INNOVATIONS**

#### Founder, BULAAO

#### 2022-Present

- Developed a website **connecting elderly patients with physiotherapy services** by trained physiotherapists **in 5 cities** (Ludhiana, Pathankot, Jalandhar, Patiala, and Bhatinda), in Punjab, India.
- Onboarded **40 professional physiotherapists** for pre and post-operative care for elderly patients.
- Increased the scope of business by **enhancing yearly patient visits from 1500 to 4000** over 2 years.
- Awarded the Most Admired Child in Innovation and Entrepreneurship in the presence of Smt. Savitri Thakur, Minister of Child and Welfare Development, Minister of State, Government of India.
- Awarded the Most Admired MedTech Start-Up in 2022 by Shri Chetan Singh Jauramajra, Minister of Health and Family Welfare, Government of Punjab.
- Awarded a Letter of Appreciation from Shri Jai Singh Rouri, Deputy Speaker, Punjab Legislative Assembly, Government of Punjab.

# <u>Founder, CutiCure</u>

#### 2023-Present

• Developed an AI-powered platform for early detection of nail diseases and provided it to 5 dermatologists in the private and public sectors in Ludhiana, Punjab to test the model's accuracy.

- Achieved an accuracy of 98.8% overall and 100% in diseases like Acral Lentiginous Melanoma, Blue Finger, Clubbing, and Terry's Nails.
- Developed a web app to host the AI model and hosted it on Streamlit.
- Awarded the Most Admired CutiCure- The Innovative Healthcare Solution by Dr. Baljit Kaur, Cabinet Minister for Women and Child Development, Government of Punjab.
- Awarded a Letter of Commendation from Dr. Kapil Dua, Former President, of the International Society of Hair Restoration Surgery.

# Founder, ThromboCount

## 2023-Present

- Developing an **AI model** to **count the number of platelets** from images of blood slides, addressing limitations in existing haematology analyzers, especially in **resource-constrained areas** with limited access to trained pathologists.
- Currently under development in collaboration with the College of Pharmaceutical Sciences and Innovation Lab of Lovely Professional University.
- The idea was patented by the Indian Patent Office.
- Awarded a Letter of Commendation from Dr. Monica Gulati, Executive Dean, Lovely Professional University.

# **RESEARCH**

<u>Independent Published Researcher, Transforming Financial Decision-Making with Artificial</u> <u>Intelligence: A Comprehensive Study on AI-Driven Algorithms for Investment, Trading, and Portfolio</u> <u>Management</u>

- Conducted a comprehensive analysis of AI models like Random Forest, Gradient Boosting Machines, CNNs, and RNNs for their effectiveness in optimizing financial decision-making and minimizing risks.
- Addressed **ethical implications**, including the **'black box' issue**, emphasizing model selection based on specific use cases in finance.
- Highlighted how **AI can transform financial industries** by enabling faster, data-driven decisions and reducing manual intervention, thus potentially leading to increased profitability
- Published in the Journal of Electrical Systems (JES) under Scopus.

Independent Published Researcher, Artificial Intelligence in Dermatology: Improving Diagnostic Accuracy in Nail Disorders Through Deep Learning Algorithms

- Leveraged deep learning algorithms, such as **YOLO and Roboflow**, to train AI models for identifying nail disorders with high accuracy, minimizing diagnostic errors.
- Achieved high diagnostic accuracy rates, demonstrating that AI could detect conditions earlier and more reliably than traditional methods, particularly in underserved areas with limited access to dermatologists.
- Published in the International Journal of Computer Trends and Technology (IJCTT).
- Presented at the INNOSPHERE Conference,2024.

# INTERNSHIPS

# Intern, Hackershala, Noida

- Acquired skills in penetration testing, vulnerability assessment, and network security, applying these techniques to safeguard systems from potential threats.
- Developed a strong foundation in **cybersecurity practices t**hat are applicable in IT security, cyber defense, and penetration testing, particularly valuable in data-sensitive industries like healthcare, finance, and e-commerce.

# Intern, Fortis, Shalimar Bagh, New Delhi

- Interned under Mr. Deepak Narang, Facility Director, Fortis Shalimar Bagh.
- Gained a comprehensive understanding of **hospital administration and finances** while observing the

## Summer 2023

**Summer 2024** 

real-world application of **robotic systems in surgery**.

- **Observed surgical procedures,** including laparoscopic cholecystectomy, to understand the applicability and benefits of robotic systems in patient care.
- Collaborated with the finance team to analyze the economic feasibility of robotic surgeries, assessing cost-effectiveness and potential savings from improved clinical outcomes.
- Awarded a Letter of Recommendation from Mr. Deepak Narang, Facility Director, Fortis Shalimar Bagh.

## Research Intern, Baba Farid University of Health Sciences, Faridkot

- Research Intern under Dr. Jaspreet Vij, Associate Professor.
- Prepared the questionnaire for Quality of Life and Motor Function in Children with Spina Bifida and Hydrocephalus: Impact on Family Functioning in Indian Rural Population and circulated it.
- Co-author in **Quality of Life and Motor Function in Children with Spina Bifida and Hydrocephalus: Impact on Family Functioning in Indian Rural Population**, which examines the relationship between motor function and quality of life in children, highlighting the challenges faced by rural families and offers insights into improving their overall well-being.
- Published in the International Journal for Multidisciplinary Research (IJFMR).

## COMMUNITY ENGAGEMENT

#### Founder, Saarthi\_aks

- Initiated a community-driven not-for-profit initiative that aimed to help COVID patients by arranging home-cooked food, and medical kits for them.
- Coordinated **meal preparation and distribution** for over 400 families, ensuring reliable access to nutritious food during isolation periods.
- Expanded services to offer at-home blood tests and medical kits, addressing immediate healthcare needs and supporting early detection of COVID-19 symptoms.
- Collaborated with **local healthcare providers from 2 institutions** to offer essential supplies like blood tests, aiming to fill critical gaps in community support during the pandemic.

#### Volunteer, Have A Heart Foundation, Ludhiana

- Worked as a **volunteer and** supported the foundation's mission of funding surgeries for children with congenital heart disorders by assisting with patient outreach and fundraising activities.
- Learned the foundation's process for verifying patient backgrounds and assessing eligibility, ensuring that funds reached those in genuine need.
- Actively **participated in fundraising efforts**, helping to secure resources for life-saving surgeries and raising community awareness of congenital heart disorders.

# Volunteer, Zindagi Live Foundation, Ludhiana

- Contributed to the Zindagi Live Foundation's mission of supporting children affected by Thalassemia through organizing and facilitating blood donation camps.
- Worked as a **volunteer with the Zindagi Live Foundation** to organize blood donation camps and raise awareness for donating blood.
- Assisted in the **planning and coordination of blood drives**, ensuring smooth operations and a safe environment for donors and recipients.
- Engaged in **community outreach to raise awareness about Thalassemia** and the importance of regular blood donations, encouraging greater participation from local volunteers.

#### Founder, Cause\_For\_Paws

#### September 2021 - October 2021

• Initiated a project to develop an app that allows individuals to request emergency assistance for injured stray dogs and cats, aiming to improve animal welfare and provide timely help for animals in

#### 2021-2022

2020-2021

#### April 2024-May 2024

## 2021-Present

need.

Designed the app concept to enable users to send a request and upload a photo, alerting nearby animal ambulances or volunteers to respond quickly to injured strays.

#### **EXTRACURRICULARS**

## Karate, Goju Ryu Okinawakan Karate Do Kyokai India

- Earned a **black belt** in karate, which is its topmost level.
- Achieved Gold in the 7th Kyo Rin State Karate Championship in the Kata and Kumite event in • 2021.
- Won **Gold** in the **10th Inter School National Karate Championship** in the Kata and Kumite in 2021.
- Hosted a **belt test** in Ludhiana.
- Mentoring 9 orphaned students in Ludhiana to teach them the fundamentals of Karate.

#### Founder and President, AI Club

- President of the AI Club in School and managed 15 students.
- Organized **classes** to teach the students **Python and Java**.
- Learned valuable leadership and team-management skills while guiding members through the exploration of AI technologies.
- Learned how to encourage creativity and explain concepts while explaining the use of AI in real-world scenarios.

<ul> <li>Achieved second place in the ASISC Regional Debate Competition.</li> </ul>	2022
<ul> <li>Speaker</li> <li>Spoke the Annual Report in the Annual Function.</li> </ul>	2023
Music	2016-2018
	2021-Present
<ul> <li>Grade 2 Guitar player; received Certificate of Distinction from Trinity College Le</li> <li>Vocal Music</li> <li>Playing Harmonium along with singing since 2022.</li> </ul>	ondon.
Sports	
Football	2022-Present
• Captain of the school Football Team in 2023 and 2024.	
Achieved second place in the Ludhiana District Football Championship in 2022.	1
• Achieved first place in the ASISC Zonal Football Tournament in 2022.	
• Won first place in the ASISC Regional Football Tournament in 2023.	
<ul> <li>Won the Alumni Sports Meet held in our school.</li> </ul>	
Athletics	2023-Present

#### Athletics

- Won the **first prize** in the **4X100m Relay Race** in 2023.
- Won the **third prize** in the **100m Race** in 2024.
- Won the first prize in the 4X100m Relay Race in 2024.
- Won the second prize in the 400m Race in 2024. •

#### **Online** Courses

- Ethical Hacking on Udemy
- Coding Lessons on WhiteHatJr

2014-Present

2024

#### <u>SKILLS</u>

- Proficient in English, Hindi, and Punjabi.
- Proficient in Java and Javascript.
- Proficient in YOLO, Roboflow, and Google AutoML Vision.