



Ishan Panpaliya



Personal Info

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Website

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Volunteering

Math and Language Tutor, Learn In Shelter

Volunteer Disability Notetaker, Carnegie Mellon University

DECA Class Representative, Skyline High School

Art Teacher, Drawing4US

Organizer for ACIT Summer Concert Workshop



Skills and Extracurricular Activities

Python, Java, R, HTML/CSS

Pytorch, NumPy, Scikitlearn, Pandas, Tensorboard Visualization

Tabla, Cycling, Art, Math Club



Summary

- Researcher skilled at applying computer science and mathematics to healthcare related problems. Curious about the intersection of neuroscience, mathematics, and philosophy. Loves creating art, especially playing the tabla (Indian musical instrument) and teaching others.



Education

- present

- **IB Diploma Candidate**

Skyline High School, Sammamish, Washington

- Cumulative GPA 3.92/4.0
- Courses: IB Math HL, IB Computer Science SL, IB Biology HL, Graphic Design, IB Language and Literature HL, IB Spanish SL

2020-06
- 2020-08

- **Summer Program, Methods for Data Science and Statistics**

Carnegie Mellon University, Pittsburg, Pennsylvania

Achieved grade of 97%

2019-06
- 2019-08

- **Pre-College Engineering Program**

Washington University in St. Louis, St. Louis, Missouri



Work History

2020-06
- 2020-09

- **Horizon Academic High School Research Program: Research Internship with Statistical Genetics RA**

University of Cambridge, Cambridge, England

- Final Project Grade: 94.6%, Top 5%
- Architected and developed machine learning image classifiers for the diagnosis of COVID-19
- Programmed convolutional neural network based diagnostic tools using Python to accurately differentiate between COVID-19 and other similar diseases like pneumonia and tuberculosis
- Authored Academic Paper: Classification of Multiple COVID-19 like Diseases using a Deep Learning Model Framework on Chest Radiographs and Visualization of Extracted Image Features with Principal Component Analysis
- 1st place winner in Washington State Science and Engineering Fair and 2nd place winner in Central Sound Region Science and Engineering Fair (Computational Biology Category) for the groundbreaking research and its future potential

2019-11
- 2020-02

- **Sales and Marketing Researcher**

Costco, Issaquah, Washington

- Interviewed Costco's Online Marketing Director to analyze Costco's customer perceptions regarding current reputation and online brand presence
- Led customer focus groups and documented recommendations in a

Research Paper. Suggestions included enhanced customer engagement via app, exclusive deals online via Costco.com, strengthening social media presence & online advertisement

- Research Paper was selected to qualify for the DECA (Distributive Education Clubs of America) State Competition



Awards

- **2021 American Mathematics Competition (AMC) – Score: 102**
- **2021 American Invitational Mathematics Examination (AIME) Qualifier**
- **2021 USA National Brain Bee Finalist – A Neuroscience National Competition for Teenagers**
- **2020 Alaska Brain Bee – Winner 2020: Academic competition for high school students in Neuroscience**
- **2019 North South Foundation National Brain Bee 2019 - 5th Place representing Washington State**
- **2020 USA Computing Olympiad (USACO) Silver Division Award**
- **2019 and 2018 Reflections Art Competition – School Finalist and District Qualifier**
- **2020 Health Occupations Students of America (HOSA) Intl Leadership Competition – 7th Place for Parliamentary Procedure**
- **2019 PSAT Score: 1500/1520**