# Muhammad Usaid Rehman

rehman.usaid@gmail.com · +92 3451440433 · LinkedIn · GitHub

Karachi, Pakistan


## EDUCATION

- **Habib University** **Karachi, Pakistan**
  BSc. Computer Science
  Minors: Mathematics, Music
  CGPA: 3.5
  *2018-present*
- **Cedar College** **Karachi, Pakistan**
  A-Levels
  Physics(A), Chemistry(A), Mathematics(A), Further Mathematics(B);
  SAT I: 1480
  *2016-2018*

## EXPERIENCE

- **World Wildlife Fund – Pakistan**
  Machine Learning Intern
  Developing and testing an image classification model using deep learning to classify species of birds as part of the *Khidmat* requirement at Habib University.
  *June 2021 – Present*
- **Habib University – ISCIM**
  Teaching Assistant for MATH 102: Calculus II
  Provided support to faculty and students, individual instruction, held office hours & tutorial sessions, and graded homework assignments.
  *January 2021 - May 2021*
- **Habib University – ISCIM**
  Teaching Assistant for MATH 202: Engineering Mathematics
  Assisted faculty, held office hours and tutorial sessions, provided individual support to students and graded engagement assignments.
  *August 2020 – December 2020*
- **Physics & Astronomy Club – Habib University**
  Treasurer
  Managed club finances, prepared budget reports & acquisition requests, assisted in organizing public lectures and events.
  *August 2019 – March 2020*

## AWARDS & SCHOLARSHIPS

- **Habib Excellence Scholar**
  Habib University
  Scholarship of 70% awarded for 4 years due to A-level grades and admission application.
  *2018*
- **Honor Roll**
  Cedar College
  Awarded for having a 4.0 GPA in AS Level.
  *2017*

## SKILLS

- **Technologies**
  Proficient in Python (Pytorch/TensorFlow, Numpy, Networkx, Pandas), C/C++, C#, SQL, JavaScript, Bash, NetLogo, LaTeX, Maple, MATLAB, Octave, Git/Github, MS Office Suite
- **Theoretical Skills**
  Design and Analysis of Algorithms, Data Structures, Theory of Computation, Evolutionary Computation, Machine Learning, Deep Learning, Natural Language Processing, Graph Theory, Linear Algebra, Probability & Statistics
- **Teaching & Research**
  Lesson planning, providing individual instruction, liaising between students and faculty, performing literature reviews, data analysis, writing academic research papers, conducting surveys, conducting ethnographic fieldwork.

## PROJECTS

- **An Evolutionary Approach To The Graph Bandwidth Problem**
  Final project for CS 451: Computational Intelligence
  Implemented a Genetic Algorithm to solve the Graph Bandwidth problem and analyze its performance using several parameters.
  *Python, Numpy, LaTeX*
- **Agent-Based Modelling of Slime Mold**
  Final project for CS262: Computational Social Science
  An agent-based model of the slime mold (*P. polychephalum*) implemented to model its growth and behavior.
  *NetLogo, LaTeX*
- ***Maaruf* E-Library**
  An e-library management software built for CS 353: Software Engineering, utilising agile project management techniques.
  *Electron, NodeJs, Jira*
- **A Simple Text Editor**
  A simple text editor implemented using Ropes - a special data structure used for string manipulation.
  *Python*

## HOBBIES & INTERESTS

- **Academic & Research Interests:** Pure Mathematics (Analysis, Graph Theory), Theoretical Computer Science, Algorithms, Machine Learning, Evolutionary Algorithms, Ethnomusicology
- **Hobbies:** Music, Travelling, Reading, Outdoor Adventure (trekking, river-rafting, hiking), Film, Cooking
- **Volunteering:** Volunteered for Snow Leopard Foundation (SLF) at Hunza, Ayesha Chundrigar Foundation (ACF) in Karachi