SAYAN CHAUDHRY

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// EDUCATION

School of Computer Science, Carnegie Mellon University

Bachelor of Science
Computer Science, May 2021

Additional Minor:
Human-Computer Interaction

QPA: 4.0 (Dean's List F17, S18)

Relevant Coursework:
- Parallel and Sequential Data Structures and Algorithms*
- Great Ideas in Theoretical Computer Science*
- Principles of Imperative Computation
- Principles of Functional Programming
- Calculus in Three Dimensions
- Principles of Microeconomics

// SKILLS

Programming/Scripting:
Python • C/C++ • SML • Java • HTML • CSS • JavaScript

Technologies/Environments:
Linux • Git • SQL • MongoDB • TensorFlow • OpenCV • REST

// ACTIVITIES

Mathematical Foundations of Computer Science
Teaching Assistant
August 2018 – present

ScottyLabs
Director of Finance
February 2018 – present

TartanHacks
Student Organizer
October 2017 – February 2018

CMU UNICEF
Education Co-Chair
October 2017 – December 2017

Teknowledge
Curriculum Designer
October 2017 – November 2017

// WORK EXPERIENCE

PreCog Research Lab, Indraprastha Institute of Information Technology
Summer Research Intern, May 2018 – July 2018
- Used TensorFlow and MLKit to identify and analyze dangerous selfies on social media as part of the #Killfie project under Prof. Ponnurangam Kumaraguru
- Developed an accompanying Android app to warn users taking dangerous selfies in real time

Language Technologies Institute, Carnegie Mellon University
Research Assistant, February 2018 – May 2018
- Extracted tabular data from WWW pages to help build a new web-browsing modality for the blind as part of the SayHear project
- Wrote MySQL queries to train ML algorithms how to extract relevant information from parsed tables

Edutech Foundation
Head of Operations, July 2015 – July 2017
- Initiated SheForSTEM campaign to inspire girls to pursue sciences in high school
- Created English speaking courses to help underprivileged children become job ready

// SELECTED PROJECTS

No Duckling is Ugly • PennApps Fall 2018
- Developed a scalable IoT system to tackle the problem of bullying in schools by conducting sentiment analysis and voice model recognition using a RESTful API for CRUD operations
- The project won the Best Education Hack and the Best IoT Hack awards at the hackathon

ezxkcd • PennApps Winter 2018
- Created a media recommendation algorithm using sentiment analysis that suggested xkcd comics by recognizing the user's current mood using OpenCV and Tensorflow with a 3-member team
- The project was among the top 30 hacks at the hackathon

VideoLingo • HackCMU 2017
- Created a desktop platform in Python that helps users learn new languages by using community translated YouTube closed captions with a 4-member team
- The project was named the 'Most Likely to be the Next Million Dollar Startup'

Bhasha Technologies • BharatHacks 2017
- Developed an accessibility solution in Python with 4-member team to translate and dub the audio track of any YouTube video into Indian regional languages in real time
- The project won the first prize at the hackathon and is part of IBM's Global Entrepreneur network

// RESEARCH

Realizing a Microprocessor as a Particle Sensor
Participant, CERN Beamline for Schools

Button and Hook Tacking Device and Method Thereof (Patent Pending)
Awardee, Dr APJ Abdul Kalam IGNITE Award 2017 by National Innovation Foundation

Data Management Device to Enhance Cellular Connectivity in Rural Areas (Patent Pending)
Awardee, Dr APJ Abdul Kalam IGNITE Award 2016 by National Innovation Foundation

Computation Model for Detection and Profiling of Antimicrobial Resistance in N. gonorrhoeae
- *National Finalist,* Intel IRIS National Science Fair

// HONORS AND EXPERIENCE

- *International Rank 1,* National Cyber Olympiad 2015 (held in 22 countries)
- *Honorable Mention,* NASA Ames Space Settlement Contest
- *Second Runners-Up,* Computer Society of India's Young Talent in Computer Programming
- *Student Organizer,* XINO 2016 - a statewide technology symposium with 300+ participants