Palash Taneja

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EDUCATION

Delhi Public School Rohini, New Delhi, India

• 93% Science Non-Medical, Central Board of Secondary Education (Grade 12)

• 10 CGPA - CBSE All India Secondary School Examination (Grade 10)

• Proficiency Holder

Honors and Awards

2018

- Nominated, for the Forbes Asia 30 under 30 list for my work on Dubit by a former 30 under 30 winner
- Winner, ASES Summit a selective entrepreneurship summit organized by University of Melbourne in collaboration with ASES, Stanford University for 20 students across the world.
- Top High School participant, Google CTF ranked 184 in capture the flag contest organized by Google. The contest was attended by computer security professionals and I achieved the highest rank of any high school team in the contest.
- Grand Prize Winner, Google Code-in an online software development competition organized by Google which saw the participation of 3550+ participants from 78 countries. During Google Code-in, I made significant (8k+ lines of code) contributions to CloudCV, an open source cloud platform started by students and faculty at Georgia Tech with the aim to make AI research more reproducible.
- Excellent performer, Halite II, an AI bot competition organized by Two Sigma, a New York-based hedge fund, and Cornell Tech. The competition was attended by 2,475 AI professionals, 2,572 University Students and 785 High School students. I was ranked #1 among high school students from India (#7 among all categories) and was ranked 39 among high schoolers internationally.

2017

- Winner and IBM Global Entrepreneur Finalist, BharatHacks 2017 for Bhasha Technologies online platform in Python to translate and dub the audio track of any YouTube video into African and Indian regional languages
- Runners-Up, O(1) Hack for Ocean Technologies in a team of 3 members web browser extension in Python and Javascript to enable voice control functionality on any webpage to make it blind friendly
- Second Runners-Up, Computer Society of India's National Level Young Programming Talent Search Contest
- Winner, Random Hacks of Kindness, Delhi 2017 for DubShalla an educational content curation platform powered by Bhasha Technologies

2016

- Second Runners-Up, Computer Society of India's National Level Young Programming Talent Search Contest
- Qualifier, Indian National Olympiad in Informatics
- Won over 10 inter-school programming related competitions

2015

• Rank 28/18000, in the Delhi government's Junior Science Talent Search Examination among students from all over New Delhi

LEADERSHIP POSITIONS

President and Founder, Abusend

Started a non-profit organization to provide an anonymous help platform to school children who are bullied or suffer from stress and mental health problems.

President, Vortex Math Club

Prepared and supervised two out of six events for a statewide math symposium with over 350 students; designed and maintained the club website. Replaced nomination based recruitment system with a merit based one.

Core Member, Xino (Computer Club)

Held programming workshops for juniors. Coordinated sponsorships for school event which was attended by over 300 students from across the city.

PROJECTS AND RESEARCH

Dubit Startup project October 2017

Created an app that makes online education accessible to children from developing countries by creating real-time dubbed audio in their native languages. Won two hackathons and a \$100k grant from IBM. Re branded and re-coded it to use node js this year and am being nominated for Forbes' Asia 30 under 30 list for it. https://dubitapp.github.io

A Recurrent Neural Network and smartphone based approach to detecting early stage Parkinson's disease

August 2018

Pair Research for MIT IEEE,

Improved on current research to provide more accurate diagnosis using upto 52% less data and time

 $Created\ artificial\ intelligence\ algorithm\ to\ play\ anti-chess$

August 2017

Independent Research,

Used minimax algorithm and experimented with various point systems to find an optimal point system for the game of anti-chess.

TalkToMe July 2018

Pair programming project

A Google chrome personal assistant for visually impaired internet users. Think Siri but for Chrome https://chrome.google.com/webstore/detail/talktome/nefaaifpgqpfdjlfhfbcqfcjimlqpocc

Created a suicidal tendencies detector

October 2017

Created a Twitter stream analyzer which can detect suicidal tendencies among Twitter users with over 91% accuracy. Code unpublished to prevent misuse for malicious intent and harassment.

 ${\it Classifying \ code \ into \ its \ programming \ language}$

October 2017

Independent Research,

Experimented with various classifiers including LinearSVCs and Recurrent Neural Networks, achieving better performance than many commercially used classifiers such as Github's Linguist. www.palashtanejapro.github.io

Predicting Dengue Fever outbreaks using Recurrent Neural Networks Independent Research,

April 2017

Prototype tool has much better accuracy than current solutions https://palashtanejapro.github.io

Chrome extension to make web-pages color-blind friendly

April 2017

Researched into various types of color-blindness and created a chrome extension which detects similar colors and changes them into very distinct colors.

ZZZucc August 2018

Pair programming project

A personal sleep assistant implemented as a Messenger chatbot which provides sleep reminders and healthy sleeping suggestions.

College Essay Writing Bot

December 2017

Trained bot on my college essays and Presidential speeches to create funny essays.

Realizing a Microprocessor as a particle sensor

March 2017

Participant, Beamline for Schools

European Organization for Nuclear Research (CERN)

ACTIVITIES

Volunteer Teacher, Lead School (23+ hrs/week for 4 weeks) August 2018 - September 2018 Taught English and Math to under-priviliged Grade 1-2 government school students in New Delhi. Raised funds for their welfare.

Mentor and Contributor, CloudCV (20+ hrs/week for 8 weeks/year) November 2017 - Present Contributed over 8k lines of code, and 150 commits to CloudCV, an open source organization working on various areas in machine learning. Some of the projects I contributed to were: Fabrik—a drag and drop editor for neural networks, EvalAI—An open-source competition platform like Kaggle, Origami—an Artificial intelligence as a service platform. I worked with almost all popular machine learning frameworks, Django, React, and Redux during my time there; I also wrote a bot for enhancing communication and management in the community channels. This year I have been serving as a mentor to school students trying to get into open-source through Google's Code-in contest.

Independent Security Researcher (7+ hrs/week for 16 weeks/year) August 2015 - Present Found an HSTS configuration problem with cookies in the admissions portals of MIT, Princeton, UWaterloo, UIUC, and Boston University. Re-wrote a popular HSTS exploitation payload, SSLstrip to fit my needs and exploit that particular problem.

Competitive Programming (15+ hrs/week for 18 weeks) August 2016 - October 2017 Competitive programming is a mind sport usually held over the Internet or a local network, involving participants trying to program according to provided specifications. I started competitive programming when I was in Class 11 (Aug 2016) and in a span of an year I have won over 8 inter-school competitive programming competitions, got third place in 2 national competitions and qualified for the Indian National Olympiad in Informatics.

Research (20+ hrs/week for 10 weeks)

March 2017 - Now

Conducted research on the topics mentioned above.

Math and Number Theory (10+ hrs/week for 5 weeks)

June 2017 - August 2017

Completed number theory books including Mathematical Circles during my summer vacation (June-July 2017). Served as the president of my school's math club and helped organize multiple math events and activities in my school. Also developed the websites for the Math club and the events.

Computer Skills

- Languages and Frameworks: React, React Native, Redux, Tensorflow, Keras, PyTorch, C++, Python, Java, Dart, Javascript, SQL and Unix shell scripts
- Applications: LATEX, common Windows database, spreadsheet, and presentation software
- Algorithms: Experienced in dynamic programming, graph theory, common algorithms like Dijkstra's algorithm, Bellman-Ford algorithm, sorting algorithms and the like.
- Operating Systems: Unix/Linux, Mac OS, Windows.

Languages

- $\bullet\,$ English, Native Proficiency, 115/120 TOEFL
- Hindi, Native Proficiency, Mother Tongue
- French, Studied for 5 years, Cleared A1 Level
- Korean, Currently studying, very basic understanding