

# Vivek Kaushal

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Education	<b>IIIT, Hyderabad</b> 2016-2021 B.TECH, CSE WITH MS IN CONGNITIVE SCIENCES Bachelor of Technology in Computer Science and Engineering with Masters by research in Computer Science and Cognitive Sciences. Primary area of research being Decision Making. CGPA : 7.9
	<b>St.Michael's High School</b> 2006-2016 HIGH SCHOOL DIPLOMA High School Diploma in Sciences and Information Practices with 95.6%.
Interests	Research: Behavioral Economics • Decision Making • Risk Academics: Machine Learning • Artificial Intelligence • Game Theory • Cognitive Sciences Development: Shell Scripting • Data Mining • Data Analytics • Augmented Reality
Experience	<b>Cognitive Sciences Lab, IIIT-H</b> 2017 - Present NEUROECONOMICS RESEARCHER Research work and experimentation in the field of Risk, Decision Making and Entrepreneurship under Dr.Kavita Vemuri. Presented results for of an experimental setup exploring Risk Propensity at the FUR Conference, University of York in June, 2018. Currently exploring further concepts in financial risk via experimentation and application of machine learning and data analytics.
	<b>IIIT Hyderabad</b> August, 2018 - Present TEACHING ASSISTANT Accepted as a Teaching Assistant for the course Structured System Analysis and Design under Dr.Raghu Reddy owing to academic excellence in the course for Monsoon, 2018. Also accepted as a Teaching Assistant for Engineering Systems under Dr. KS Rajan for Spring, 2019. Workload for a TA involved teaching students, designing and grading assignments while also mentoring projects.
	<b>T-Hub</b> January, 2018 - Feburary, 2019 MARKET RESEARCH ANALYST T-Hub is Asia's largest start-up incubator. Wrote research papers on topics in technology, publications in reputed media outlets as well as in-house circulation for the start-up community. Topics varied from cross-domain market opportunities to deconstruction of implemented strategies. Valuation of all T-Hub start-ups based on provided economic parameters also undertaken.
	<b>Entrepreneurship Cell, IIIT-H</b> August, 2016 - April, 2019 OVERALL HEAD Structured and curated a multi-tiered team of 30+ individuals. Started as the Head of Tech in 2016, was promoted to overall Head in April 2018. Launched multiple initiatives and established long-term collaborations with corporate and other institutions. Headed India's largest student-organised Hackathon - Megathon, ensured exponential growth, established a well-respected brand in three years.
	<b>Wowsome</b> January, 2017 - April, 2017 SOFTWARE DEVELOPEMNT INTERN Worked with Vuforia in Unity3D for development of production scale Augmented Reality Applications. Coded the application in C# using Unity3D with backend integration to Amazon Web Servers. Application developed used for ticketing platforms and cross-platform advertisement in real world scenarios.
Conferences	<b>Foundation of Utility and Risk, 2018</b> June, 2018 UNIVERSITY OF YORK Among the youngest presenters at the Foundation of Utility and Risk Coference in York, 2018. Presented a poster on Risk Propensity and its correlation with academic performance, personal network and brand loyalty. A web-based game-like simulator was created to gauge financial decision-making. Publication Link : <a href="http://web2py.iit.ac.in/research_centres/publications/view_publication/inproceedings/1541">http://web2py.iit.ac.in/research_centres/publications/view_publication/inproceedings/1541</a>

Major Projects	<p><b>Risk Propensity Measure</b> 2018          METHODOLOGY FOR BEHAVIORAL DATA COLLECTION</p> <p>A methodology was devised and a web-based application was coded in native JavaScript for remote data-collection. The application simulated real world choices and recorded responses in a game-like environment. Data collected was later used for research purposes, published and presented.</p> <p><b>AI Bot</b> 2018          ARTIFICIAL INTELLIGENCE IN GAMES</p> <p>An artificially intelligent agent was coded using custom heuristics and Alpha-Beta pruning on minimax decision trees to play Ultimate-Tic-Tac-Toe. The bot traversed decision trees and played moves that were best suited at a given point in the game as per the devised optimisation algorithm.</p> <p><b>Interactive Wall</b> 2017          AUGMENTED REALITY BASED ADVERTISING</p> <p>A standalone advertising platform was built for interactive real-world advertising. Support for android and iOS based devices was provided for interactive advertising using visual datapoints parsed by Vuforia engine in Unity3D. Presently used by 20+ consumer focussed companies.</p> <p><b>Sentinel</b> 2017          AUGMENTED REALITY BASED TICKETING</p> <p>A standalone cross-platform ticketing application coded in C# using Unity3D with Vuforia engine for image tracking. Backend integration with AWS was also embedded. The application has since been used at multiple mass-attendance events and concerts for swift ticketing without human-intervention.</p> <p><b>Terminal Shell</b> 2017          C/C++ BASED DEVELOPMENT</p> <p>A custom terminal shell was coded in C++ based on the POSIX architecture with integrated syscalls. All common shell commands were natively supported with syscalls used for less commonly used commands. An in-depth understanding of computer system architecture was gained in the process.</p> <p><b>Custom SQL Engine</b> 2018          PYTHON BASED DEVELOPMENT</p> <p>A custom SQL Engine was coded in Python to replicate the functionality of MySQL with support for complex data queries given a database structure. The Project was done for the credited Database Systems course under Dr. PK Reddy.</p>
Programming Skills	<p>Day to Day: Python, MATLAB, JavaScript, Shell          Familiar: MySQL, C/C++, C#, JAVA, Django, CSS, Unity3D          Operating Systems: OS X, Linux</p>
Relevant Courses	<p>Domain Specific: Artificial Intelligence   Machine Learning   Game Design          Systems: Database Systems   Software Engineering   Engineering Systems          Foundation: Data Structures   Structured System Analysis and Design   Digital Logic</p>
Achievements	<p>Dean's Merit List for Research, IIIT Hyderabad 2018          99.94 Percentile in JEE (Rank 994) 2016          National Talent Search Scholarship, Government of India 2015          Bronze Medallist at Regional Mathematics Olympiad 2016</p>
Positions Held	<p>Overall Head at E-Cell, IIIT-H 2016-2019          Teaching Assistant, IIIT-H 2018-Present          Member of Student Parliament, IIIT-H 2016-2018          Treasurer at IIIT Toastmasters' Club 2017-2018          Lead Organizer at Megathon 2016, 2017, 2018          Coordinator, Music Club IIIT-H 2016-2017          School Captain 2015-2016          Founder and Editor-in-Chief, School Newsletter 2015-2016</p>
Volunteer Work	<p>Event Volunteer at TEDx, Hyderabad 2016          Member at Tarumitra (UN recognised Environmental Conservation Body) 2014-2016</p>