

# Vivek Kaushal

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Education	<b>IIIT, Hyderabad</b> 2016-2021 B.TECH WITH MS IN COMPUTER SCIENCE AND ENGINEERING Bachelor of Technology in Computer Science and Engineering with a Masters by Research. Primary area of research being Financial 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 • Game Theory • Usability Engineering • Software Engineering Development: Shell Scripting • Full Stack Development • Automation • 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 analysis.
	<b>IIIT Hyderabad</b> August, 2018 - April, 2019 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 - February, 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 DEVELOPMENT 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 Conference in York, 2018. Presented a poster on Risk Propensity and its correlation with academic performance, net-worth and brand loyalty. A web-based game-like simulator was created to gauge financial decision-making. Publication Link : <a href="http://web2py.iiit.ac.in/research_centres/publications/view_publication/inproceedings/1541">http://web2py.iiit.ac.in/research_centres/publications/view_publication/inproceedings/1541</a>

Major Projects	<p><b>Risk Propensity Measure</b> 2018</p> <p>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</p> <p>ARTIFICIAL INTELLIGENCE IN GAMES</p> <p>An artificial intelligent agent was coded using custom heuristics and Alpha-Beta pruning on mini-max decision trees to play Ultimate-Tic-Tac-Toe. The bot transversed decision trees and played moves that were best suited at a given point in the game as per the devised optimization algorithm.</p> <p><b>Interactive Wall</b> 2017</p> <p>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 focused companies.</p> <p><b>Sentinel</b> 2017</p> <p>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</p> <p>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 had native support 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</p> <p>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, JavaScript, Shell, React</p> <p>Familiar: MySQL, C/C++, C#, JAVA, Django, CSS, Unity3D</p> <p>Operating Systems: OS X, Linux</p>
Relevant Courses	<p>Research Specific: Artificial Intelligence   Machine Learning   Game Design   Cognitive Neuroscience</p> <p>Systems: Database Systems   Software Engineering   Engineering Systems</p> <p>Foundation: Data Structures   Structured System Analysis and Design   Digital Logic</p>
Achievements	<p>Dean's Merit List for Research, IIIT Hyderabad 2018</p> <p>99.94 Percentile in JEE (Rank 994) 2016</p> <p>National Talent Search Scholarship, Government of India 2015</p> <p>Bronze Medallist at Regional Mathematics Olympiad 2016</p>
Positions Held	<p>Overall Head at E-Cell, IIIT-H 2016-2019</p> <p>Teaching Assistant, IIIT-H 2018-Present</p> <p>Member of Student Parliament, IIIT-H 2016-2018</p> <p>Treasurer at IIIT Toastmasters' Club 2017-2018</p> <p>Lead Organizer at Megathon 2016, 2017, 2018</p> <p>Coordinator, Music Club IIIT-H 2016-2017</p> <p>School Captain 2015-2016</p> <p>Founder and Editor-in-Chief, School Newsletter 2015-2016</p>
Volunteer Work	<p>Event Volunteer at TEDx, Hyderabad 2016</p> <p>Member at Tarumitra (UN recognised Environmental Conservation Body) 2014-2016</p>