

# Vivek Kaushal

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Education	<b>IIIT, Hyderabad</b> B.TECH WITH MS BY RESEARCH IN COMPUTER SCIENCE AND ENGINEERING CGPA : 7.96   Merit List for Academic Excellence, 2019   Dean's List for Research, 2018	2016-2021
Experience	<b>National Taiwan University, Taipei</b> RESEARCH ASSISTANT - BIG DATA ANALYSIS  Worked under Professor Hendrik Rommeswinkel on a study to assess consumers' freedom of choice in US markets using a large database of transactions across years of consumer expenditure. I devised and coded a large number of statistical models in R for big data analysis on the mentioned database.  <b>Cognitive Sciences Lab, IIIT-H</b> UNDERGRADUATE RESEARCHER  Working in the field of Human Computer Interaction under Dr. Kavita Vemuri. Presented work at multiple conferences -- listed below. Currently working on the evaluation of visual advertisements from a cognitive perspective and optimization using machine learning models.  <b>IIIT Hyderabad</b> TEACHING ASSISTANT  Accepted as a Teaching Assistant for the courses : Structured System Analysis and Design under Dr.Raghu Reddy for Monsoon, 2018, and Engineering Systems under Dr. KS Rajan for Spring, 2019. Workload involved teaching students, designing and grading assignments while also mentoring projects.  <b>T-Hub</b> INFORMATION RESEARCH INTERN  Worked closely with T-Hub start-ups to write papers on topics in technology for in-house circulation and publication. Topics centered around domain specific market opportunities and data analysis.  <b>DreamVu Inc.</b> MARKET RESEARCH INTERN  Worked on strategies for market entry and disruption in the robotics and computer vision industry. Reported directly to the COO and CEO with research insights and gauged market synergies.  <b>Wowsome</b> AUGMENTED REALITY INTERN  Worked with Vuforia in Unity3D for production scale Augmented Reality Applications. Built the platform from scratch in C# using Unity3D with backend integration to AWS. Two distinct projects : Sentinel - An AR based ticket checker; Interactive Wall - an innovative AR based advertising platform.  <b>Entrepreneurship Cell, IIIT-H</b> OVERALL HEAD  Structured and curated a multi-tiered team of 30+ individuals. Launched multiple initiatives and established long-term collaborations with corporate institutions. Headed India's largest student-organized hackathon - Megathon, ensured exponential growth, established a well-respected brand in three years.	May, 2019 - July, 2019  August, 2017 - Present  August, 2018 - April, 2019  January, 2018 - February, 2019  August, 2019 - Present  January, 2017 - April, 2017  August, 2016 - April, 2019
Research Work	<b>Foundation of Utility and Risk Conference</b> UNIVERSITY OF YORK, YORK, UK  Poster presented on a pilot study of risk propensity and academic performance using a choice simulator.  <b>Sixth Annual Conference of the Association for Cognitive Sciences in India</b> BITS PILANI GOA CAMPUS, GOA, INDIA  Paper accepted on "Investigating Academic Performance and Financial Risk-Taking" -- poster presented. DOI : 10.13140/RG.2.2.19873.56160	June, 2018  December, 2019

Major Projects	<p><b>Consumer Freedom Measure</b> 2019 BIG DATA ANALYSIS USING R</p> <p>Assisted the development of a data analysis codebase in R to draw inferences on a large-scale consumer behavior database that tracked 60,000+ US families' expenditure on goods over a period of 14 years. Besides development on the codebase, studied practical trends in data sciences and applied statistics.</p> <p><b>Click-bait and Advertisements</b> 2019 HUMAN COMPUTER INTERACTION   EYE-TRACKING</p> <p>Worked with Dr. Prithwiraj Mukherjee, IIM Bangalore, on a study of user interaction with ads on click-bait articles. Tobii x120 eye-tracker and python used for experimentation and data analysis respectively. Handled experimentation and data analysis, with active contribution in experiment design.</p> <p><b>Financial Risk Behaviour Assessment</b> 2018 BEHAVIOURAL ECONOMICS   COGNITIVE SCIENCE</p> <p>A web-app was coded for a comparative study of financial risk intelligence and academic performance. The application simulated real world choices and recorded responses in a game-like environment. Data collected was analysed and the results published at 6th ACCS, 2019 - BITS Pilani, Goa Campus.</p> <p><b>3D Animation Action Recognition</b> 2019 COMPUTER ANIMATION   DATA ANALYSIS</p> <p>Extensive data analysis done on a collected dataset to test whether it's easier to identify 3D avatar based action renders as compared to 3D skeleton based action renders. Study has applications in computing resource conservation and assessment of difficulty in action recognition.</p> <p><b>Interactive Wall</b> 2017 AR/VR   UNITY3D</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 data-points parsed by Vuforia engine in Unity3D. Presently used by 20+ consumer focused companies.</p> <p><b>Expenses Tracker App</b> 2019 IOS/ANDROID DEVELOPMENT   FLUTTER</p> <p>An expense tracker app built in Flutter using Dart to provide cross platform support for both iOS and Android devices. Functionality includes adding, removing, editing and visualizing expenses.</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 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>
Skills	<p>Day to Day: Python, JavaScript, Shell, Git, PyTorch, Dart - Flutter, Flask</p> <p>Familiar: R, Tensorflow, MySQL, MATLAB, C/C++, C#, Java, Django, CSS, Unity3D, React</p> <p>Operating Systems: OS X, Linux</p>
Relevant Courses	<p>Research: Artificial Intelligence   Research Methodologies   Game Design   Cognitive Neuroscience</p> <p>Systems: Database Systems   Software Engineering   Compilers   Statistical Methods in AI</p> <p>Foundation: Data Structures   Structured System Analysis and Design   Engineering Systems</p>
Achievements	<p>Merit List for Academic Excellence, IIIT Hyderabad 2019</p> <p>Dean's List for Research, IIIT Hyderabad 2018</p> <p>99.94 Percentile in JEE (Rank 992) 2016</p> <p>National Talent Search Scholarship, Government of India 2015</p>
Positions Held	<p>Overall Head at Entrepreneurship Cell, IIIT-H 2017-2019</p> <p>Teaching Assistant, IIIT-H 2018-2019</p> <p>Member of Student Parliament, IIIT-H 2016-2018</p> <p>Lead Organizer at Megathon 2017, 2018</p> <p>Coordinator, Music Club IIIT-H 2016-2017</p> <p>School Captain 2015-2016</p>