VARUN KAPOOR

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EDUCATION

Masters of Science University of Southern California   January 2024-December 2025

Courses: Advances Mobile Devices and Games, Web Technologies, Game Engine Development (C++), 3D Graphics and Rendering (C++), Multimedia Systems Design, Information Retrieval and Web Search Engines

Bachelor of Technology Christ University   June 2015-April 2019

- 9.3/10

SKILLS

Programming/Scripting Languages: (Proficient) Java, Python, C#, Kotlin, C++, JavaScript;(Familiar) C, MATLAB, SQL;
Frameworks/Tools: Android Studio, ARCore, .NET, Unity Game Engine, Unreal, Django, MongoDB, ReactJS, NodeJS, Tkinter;

WORK EXPERIENCE

Course Producer, Viterbi School of Engineering   May 2024-July 2024

CSCI 526 Advanced Mobile Devices and Games, Los Angeles, California

- Explained technical lectures regarding game development using Unity and C#
- Reviewed grading done by graders for 9 assignments throughout the course
- Set up syllabus, assignments and grading rubrics for the class

Total Cost of Ownership (TCO) Simulator/ReactJS Developer   November 2021-August 2022

Daimler Truck Innovation Center India (DTICI), Bengaluru, India

- Conceptualized the development of the application from architectural design phase to implementation phase for partners of Daimler Trucks in Japan (FUSO)
- Implemented and learned ReactJS in minimal time to provide deliverables for clients on time
- Sustained daily and weekly communication and discussions, along with sprint planning with clients regarding the application

Daimler4You/Android Developer: August 2019-October 2021

Mercedes-Benz Research and Development India (MBRDI), Bengaluru, India

- Devised and upgraded application for partners in Germany (Daimler) while working in a sprint environment
- Migrated entire application's codebase from Java to Kotlin and integrated 6 new features as the sole android developer
- Upheld constant communication with Daimler partners in Germany regarding the status of the application and better, efficient ways of bug solving

MyWork/Android Developer: August 2019-October 2021

Mercedes-Benz Research and Development India (MBRDI), Bengaluru, India

- Developed and implemented new features for partners in Europe
- Collaborated in an intercultural team with developers from Germany and India
- Adapted to sprints and discussed future sprint plans with partners and fellow developers
- Demonstrated quick thinking and problem-solving to partners, led to obtaining the application for the India team

TruckConnect/Android Developer: August 2019-October 2021

Mercedes-Benz Research and Development India (MBRDI), Bengaluru, India

- Devised an application for Truck fleet owners to simplify the process by saving upto 20% time to track fleet of trucks
- Constructed 5 new features and innovated new methods to implement deliverables on time

INTERNSHIPS

Business Development Intern   April 2018-June 2018

TrillBit, Bengaluru, India

- Developed an Augmented Reality (AR) application leveraging ARCore for Unity for customers to visualize discounts and coupons for 20 stores based on proprietary TrillBit technology
- Integrated the AR application into TrillBit's existing application

Trainee   April 2017-May 2017

Wipro, Bengaluru, India

- Created a dashboard structure with AngularJS Charts to be leveraged by teams based on input parameters of requirements

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ACADEMIC PROJECTS

Role: Game Engine Developer, Team Size: 1, Los Angeles, USA   August 2024-December 2024

- Modified the PrimeEngine game engine to add the following functionalities: Collision and Physics; Axis aligned bounding box and culling and node-based shader editor with debug information;
- The modifications were carried out in C++. These can be viewed in the website here

Role: Game developer, Musician, Team Size: 3, Los Angeles, USA   January 2024-April 2024

- Created the core and supporting mechanics of the game in C# using the Unity Game Engine.
- Saw through the development phases, including the prototype, the alpha, the beta and the gold version.
- Created a Game Design Document documenting all of the development progress along with initial concept and mechanics comparison tables. Also created the music for the game.

Role: Web developer, Team Size: 2, Bengaluru, India   July 2018-July 2018

- Developed the Infrastructure management project aimed at designing a portal for management of all aspects of infrastructure of a university building, including parts, water supply, repairs, and allow regular checking of such aspects

Role: Developer, Team Size: 10, Bengaluru, India   August 2017-April 2018

- Member of ESAIL Project: Performed brainstorming sessions for a method to purify water around rivers in Bangalore
- Collected data from farmers and converting data into relevant knowledge. The water deployed by farmers for crops was highly impure due to rapid industrialization of the area around Bangalore decreasing the quality of the crops

Role: Team Lead, Team Size: 3, Bengaluru, India   August 2015-September 2015

- Led the project "Smart control of electrical appliances using Android". Created an Android application to control electrical appliances using an Arduino and a Wi-Fi module

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COURSES

- Introduction To Game Design, California Institute Of Arts, July 2021
- Introduction To Augmented Reality And Arcore, Google Daydream, July 2018
- Introduction To Cybersecurity, Cisco Networking Academy, December 2017
- Game Development For Modern Platforms, Michigan State University, December 2016
- Business Of Games And Entrepreneurship, Michigan State University, June 2016
- Principles Of Game Design, Michigan State University, May 2016
- Introduction To Game Development, Michigan State University, April 2016

PUBLICATIONS

- Paper entitled "Augmented Reality Enabled Education for Middle Schools" accepted in the International Conference on Adaptive Computational Intelligence (ICACI) 2019, Springer, 2019 and published in SN Computer Science (Springer), May, 2020 – DOI: 10.1007/s42979-020-00155-6