Yuvraj Tilotia

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Objective | Education | Research Interests | Projects and Reports | Seminars | Awards and Honours | Extra and Co-Curricular Activities | Skills and Languages | Scholarships | References

OBJECTIVE

Hard-working and motivated engineering student with authentic skills in user-research, animation and game design with development, product design thinking, dedicated to leveraging my abilities as a capable and diligent student researcher.

EDUCATION

Vel Tech RR and Dr. SR R&D Institute of Science and Technology
June 2017 - present   *Chennai, India*

Bachelor of Technology
Computer Science and Engineering with specialization in Animation and Game Design
GPA: 8.03 / 10

Relevant Courses: Design and Analysis of Algorithms, Object-Oriented Software Engineering, Design Thinking, New Game Development Paradigm with Unity ECS, Computer Science for Sustainable Development, Computer Graphics and Image Processing, Project Management and Finance, 3D Animation, 3D Architecture and Art Design, Unity Development, 3D Advanced Animation, Mobile Application Development, Compiler Design, Java Programming, Internet Programming, Analog and Digital Communication, Computer Graphic Image Processing.

Asia University 亞洲大學
July 2018   *Taichung City, Taiwan*

Summer Programme
Course: Financial Technology
Grade: A

About: A cross-cultural and multinational experience with diverse team members to research on various technologies available. From cryptocurrency to stock market, the course was designed for the students to understand various intricacies of financial technology. The course outcome was to implement these technologies and present a business model for a start-up or a expansion model for existing organization.

RESEARCH INTERESTS

I want to research in the field of Machine Learning and Artificial Intelligence application in Game Design and Development and other relevant fields that are aimed to improve current and future technologies by inculcating these methodologies in producing many open world games.

My focus is to increase the quality of detailing which we generally see in games. Whether it be texture support, character designing, game physics etc. I want to uplift the level of attributes so that the user can have the best gameplay experience possible.

With skills in technical report writing, user research, design and development, and ability to quickly adapt to new concepts and methods, furthermore, aiming to further my skills and knowledge through experiences and challenges in reputed institutes – I want to contribute to the field and in turn, to the gaming community which is increasing day by day.

Faculty Learning and Development Portal
August 2020

Curricular Project – Internet Programming,
Under the aegis of Asst. Prof. Uma S.
Faculty - Internet Programming
Department of Computer Science and Engineering
Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai

About: Faculty Learning and Development Portal is a platform aimed to gauge and monitor faculties in a particular educational institution. We used HTML5 with embedded CSS to design the Web Portal. We used XML and python to build a database with only admin access. In the portal, we used online courses to measure the learning program finished by each faculty. This portal was aimed at developing new skills for faculties and also measure their existing skills at the same time.

TruApp
July 2020

Under the aegis of Asst. Prof. Vivek J.
Faculty – Mobile Application Development
Department of Computer Science and Engineering
Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai

About: TruApp is a monitoring application which can be used to view the existing permissions which each and every application in your Android mobile phone is using, including system applications. This provides the user a hands-on view to the applications and also makes the user aware about possible privacy breach issues. We also designed a database to keep track of harmful applications which the user can input and make other users aware of the harmful application.

India's Smart Cities – Sustainable Development Model
March 2020

International Visiting Faculties Programme
Under the aegis of Prof. Daniel Einarson, Ph.D.
Faculty of Natural Sciences,
Department of Computer Science
Kristianstad University, Kristianstad, Sweden

About: The project is a probe model for the smart cities planned in India. It aims at researching the areas which will be directly affected by the development project initiated by the Indian Government. We focused on education as we believed that education should be the primary focus for such a large scale project as it ensures sustainability in the long run. Education creates a skilled workforce which will be required by a developing nation like India.

Turrican 2
February 2019

International Visiting Faculties Programme
Under the aegis of Prof. Goran Dambic, Ph.D.
Head of Game Development Study program
University College Algebra, Zagreb, Croatia

About: Turrican II is the second game of the Turrican series. The game, developed by Factor 5 was released in 1991 for the Commodore Amiga. We redeveloped the game with new level design and sound track using Unity ECS. which was considered for assessment purpose.

International Efficient Transport Model
August 2018

亞洲大學 *- Summer Programme*
Under the Aegis of Dr. Edgar Lin
Asia University, Taichung City, Taiwan

About: The team researched models of shipping companies, followed by in-depth learning of techniques in a management study about shipping and its related logistics. We used the existing model for transport across sea ports and introduced new features involving artificial intelligence to showcase the lack of efficiency in the existing model.

Smart Dustbin and Waste Management
May 2018

Conceive-Design-Implement-Operate (CDIO) Initiative
Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai

About: It is an initiative directed towards freshers to introduce the basic concepts of all core engineering departments such as Mechanical, Electrical, Electronic, and Computer Science. Various skills in lathing, machining, welding, carpentry, electrical wiring, and electronic board design were learned here. The team worked on the design and fabrication of an Smart Dustbin which could relay live information to the base centre where all such dustbins are being monitored using an Arduino board, embedded programming and basic knowledge of sensors and circuit control.

SEMINARS

Fog Screen
December 2018

About: The team researched and aimed to provide information about projection technique called "Fog Screen". It's a relatively new technology which is aimed at replacing the existing projection technique. A fog display, fog screen, is a system that uses haze machines or water vapor to create a semi-transparent wall, or "curtain" of suspended particles which are trapped in a thin sheet (Laminar Flow) of air and are illuminated by a projector, in order to produce a display whose images seem to float in mid air.

Accident Prevention and Detection
July 2020

About: The main objective of this project design is to the enhancement of safety and security of the vehicle user. This system consists of many Internet of things (IoT) modules. Initially, RFID is used as the key to triggering the engine, along with the start-up of the camera system to identify the driver's face using face recognition technology and is compared with the image in the license stored in the server which contains the details about the license holder to check the originality. Along with the accident prevention technique, a new system of accident detection technique has been proposed to overcome the problem of rescuing people from the accident. This system uses a vibration sensor to detect the accident occurrence and ZIGBEE to inform the accident occurrence to the nearby rescue team.

AWARDS AND HONOURS

Mitacs Globalink Research Internship Award
February 2020   *Athabasca University, Edmonton, Canada*

Title: Creating an Online Social Game for Learning – under the aegis of Prof. Oscar Lin
About: Mitacs Globalink Research Internship is a competitive initiative for international undergraduates, top-ranked applicants participate in a 12-week research internship under the supervision of Canadian university faculty members in a variety of academic disciplines, from science, engineering, and mathematics to the humanities and social sciences. Due to the international travel restrictions imposed cause of COVID-19 pandemic, the internship was cancelled.

Vel Tech Student Anti-Ragging Committee
Chairperson
June 2019 – present
Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai

About: I head the student anti-ragging committee in which the student body discusses how they can mitigate any type of ragging activity, if any, in the campus.

Annual Sports Day
March 2018, 2019, 2020

Winner of Men's Football (Inter-Department) Event.

EXTRA AND CO-CURRICULAR ACTIVITIES

Model United Nations
1ˢᵗ March 2020   *Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Chairperson, Model United Nations Social, Humanitarian and Cultural Committee (M-SOCHUM)

Vel Tech TEDx Club
June 2019 - present   *Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Club Member, organizing and participating in various TEDx events.

Tantraz' 2020
February 2020   *Department of Computer Science and Engineering, Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Event Coordinator - planning with multiple teams and organizers for smooth execution of events.

Vel Tech's Animation and Game Design Club
July 2019 - present   *Department of Computer Science and Engineering, Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Club President – We organise events for students to showcase their designing skills in the field of game character and level design.

LaVaZA 2019
January 2019   *Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Masters of Ceremony in the Group Dance event of the annual College Fest. I have also been comparing and speaking on various events through-out my undergraduate career.

Computer Science Engineering Technical Association
September 2018 – present   *School of Computing, Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Executive Member of the premier associative club in School of Computing at Vel Tech RR and Dr. SR R&D Institute of Science and Technology

University Men's Football Team
July 2018 – present   *Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

Team Captain – I represent the university in various tournaments across the state.

SOCIAL ACTIVITIES

SANDHAI Socio-Marketing
September 2018   *Vel Tech Technology Incubator, Chennai*

A social marketing event aimed to raise funds to help educate orphans.

INSPIRE Internship Science Camp
January 2020   *Vel Tech Technology Incubator, Chennai*

An internship camp where school students learn about latest innovations from acclaimed pioneers.

Inter Department Talent Hunt – YASH
January 2020   *Department of Computer Science and Engineering, Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai*

The event focuses on bringing out talented individuals by allowing them to showcase their skills in many technical sub-events.

SKILLS AND LANGUAGES

Research
3D Animation, 3D Landscape Design, User Interviews, Paper Research, Competitive Analysis, Need-finding, Financial Modelling and Evaluation, Data Science

Design
3Ds Max, Maya, Blender, UI Design, Unity, Adobe Photoshop, Unreal Engine

Development
HTML5, CSS3, JavaScript, Python, PHP, Web components, APIs, Java, Embedded C, SQL

Languages
English – fluent; Hindi – Native;

SCHOLARSHIPS

MITACS Globalink Research Intern
February 2020   *Athabasca University, Edmonton, Canada*

A fully-funded 12-week research internship at Athabasca University, Edmonton, Alberta, Canada

Undergraduate Scholarship
June 2017 - present   *Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai, India*

Twenty Five percent scholarship in academic fees for pursuing my undergraduate degree of Bachelor of Technology in Computer Science and Engineering with specialization in Animation and Game Design

REFERENCES

Professor Goran Dambic, Ph.D.   Professor Carmel Mary Belinda, Ph.D.
Head of Game Development Study program   Faculty for Database Management
University College Algebra, Zagreb, Croatia   Vel Tech RR and Dr. SR R&D Institute of Science and Technology, Chennai, India

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