Vipul Ujawane

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Education

Indian Institute of Technology, Kharagpur

Dual Degree in Quality Engineering Design (Industrial Electronics) *June. 2016 - PRESENT*

- CGPA : 8.52* (4th Semester)

Projects

3D Printing Project

Geometric Modelling *January 2018 - April 2017*

- A term project for Geometric Modelling, taught by Prof. CS Kumar, Department of Mechanical Engineering
- Developed a 3D Model of a Mobius Strip using OpenGL, OpenSCAD and Open Cascade
- Additive manufactured the model using Stereolithography using Objet30

Acad-Search

https://github.com/Vipul999ujawane/acad-search *May 2017 - June 2017*

- A Central Repository build for the students of IIT Kharagpur to hold Notes, Question Papers, Slides, etc.
- Backend Developed in Django (Python), while Front End Developed using HTML, CSS, Javascript and JQuery
- Mentored students on the Project during Kharagpur Winter of Code (KWOC)

Campus Security System

https://github.com/Vipul999ujawane/Campus-Security-System *Jan 2018 - April - 2018*

- A term project for Software Engineering Course, taught by Prof. Sudip Misra, Department of Computer Science and Engineering
- Followed the Waterfall Lifecycle Model for the development of the project.
- Created a Specifications Requirement Sheet, Data Flow Diagram and UML Diagrams during the design phase of the project.
- Backend Developed in JAVA using JDBC and MySQL for Database connection. Used the JUnit framework for Unit Testing the project.
- Penetration Tested the project for various vulnerabilites like SQL Injections, Cross Site Scripting and Local and Remote File Inclusion.

Gru

https://github.com/Vipul999ujawane/Gru *June 2018*

- A exploit written to get data from a vulnerability found in ERP Parents Portal for Student Performance
- Conducted a basic Webapp Penetration Testing to find and report the vulnerability to ERP Section, IIT Kharagpur
- Uses brute force technique to guess date of birth for a roll number to get acess to results.

Quiz Server

https://github.com/Vipul999ujawane/Quiz-Server *Oct 2017 - November 2017*

- A multiplayer Quiz game for recreational purposes.
- Created a Client and a server for the game. Message transfer done using UDP via sockets for Python.

K4

Formula Student IC Car *June 2017 - Present*

- Developed a Safety Wiring harness circuit based on the rules of Formula Bharat
- Developed a Electronic Gear Shifting Mechanism. Controlled using ATmega Micro-controller
- Currently working on a Dashboard Display to view Engine RPM, Gear Position and Engine Coolant Temperature.

Skills

- Programming Languages : Java | C/C++ | Embedded C | Python | Javascript | MATLAB | Verilog | Shell | Latex
- Softwares : Cadence | LabView | Eagle | Tensorflow | Metsploit | Wireshark | Nessus | Nmap | Burp Suite | Vega | SQLMap | Linux | Git

Certifications

Web App Penetration Testing

Cybrary *June 2018*

Certification Number : C-966ad7a17-1d0c451

Metasploit

Cybrary *August 2018*

Certification Number : C-966ad7a17-5e31d25

Relevant Courses

- Programming & Data Structures | Software Engineering | Geometric Modelling | Computer Architecture & Organization
- Signals & Networks | Analog Electronics | Digital Electronics | Electronics Instruments | Power Electronics | Controls System Engineering
- Design for Manufacturability | Quality Design and Control | Operations Research I | Economics

Position of Responsibility

Team KART, Formula Student Team of IIT Kharagpur

Electronics Subsystem Head *Jun. 2018 - Present*

- TeamKART designs and manufactures cars that participate in Formula Student Competitions nationally and internationally.
- Managed a team of 8 Members
- Created Wiring Harness, Electronic Gear Shifting System and a Dashboard based Display for a Formula Student IC Car
- Initiated and Designed the first iteration of an Electric Vehicle Powertrain