# SHANTHANU BALEKAI

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### About me

Passionate programmer, design engineer and ethical hacking enthusiast. I am hardworking with a never give up attitude with the ability to learn new things in a short period of time. Ambition, determination, and commitment are qualities that define me. Anything that I lack in knowledge I make up for with a hunger to learn new things, persistence, and a plan.

### Education

## B.E | 2020-2024 | B.M.S COLLEGE OF ENGINEERING

- · BE in Electronics and Communication Engineering.
- · CGPA of 8.7 out of 10.
- · Coursework in Assembly Language.
- · Coursework in Embedded C.
- · Coursework in C Programming.
- · Coursework in Verilog HDL.

# **Skills & Abilities**

#### PROGRAMMMING IN C++

- · Strong foundational knowledge of C++ and Object-Oriented programming concepts.
- · Strong knowledge of STL algorithms and containers.

## DATA STRUCTURES AND ALGORITHMS

· Excellent foundation in Data Structures and Algorithms.

## LINUX ADMINISTRATION FUNDAMENTALS

- · Experience using CLI.
- · Knowledge of Networking.
- · Good command in Shell Scripting.

# **ETHICAL HACKING**

- · WEP, WPA/WPA2 cracking.
- · MITM Attacks.
- · Client-Side attacks.
- · Server-Side attacks.

# LOGIC DESIGN USING VERILOG HDL

- $\cdot\;$  Thorough knowledge of the various modelling techniques.
- · Deep understanding of logic synthesis and constraint analysis.
- · Experience with Xilinx Vivado and Intel Quartus Prime.

### WEB DEVELOPMENT

- · HTML, CSS, Javascript.
- · Frontend Frameworks- Bootstrap, jQuery, React.js.
- · MERN stack.
- · Other DBMS software- PostgreSQL.

#### **EXPERIENCE**

## SAMSUNG PRISM, VIRTUAL PROJECT INTERN | NOV 2022-MAY 2023

- · Selected for the Samsung PRISM program after clearing the coding round with 100% marks.
- · Working to develop a Web Application for Samsung R&D Institute Bangalore.
- · Technology used- PostgreSQL, Express.js, React.js, Node.js (PERN stack).

# **Achievements**

## E-YANTRA | 2022-2023

· Semi-finals(Stage 2).

#### **CODECHEF FEBRUARY LONG 2022 GLOBAL RANK 96**

· Link to profile- https://www.codechef.com/users/funkysb\_stubbz

## 5 STAR BADGE IN C++ ON HACKERRANK

· Link to profile- https://www.hackerrank.com/shanthanu\_b7

### 3 STARS RATING ON CODECHEF

· Link to profile- https://www.codechef.com/users/funkysb\_stubbz

## **Project Work**

#### FPGA- BASED TRAFFIC LIGHT CONTROL SYSTEM

- · Created a FPGA based traffic light control system that takes in input from Ultrasonic sensors and changes the signals Using Verilog HDL.
- · Incorporated various delay and timing controls.

#### **UART MODELLING USING VERILOG HDL**

• Successfully modelled a UART (Universal Asynchronous Receiver-Transmitter) to send and receive data packets at a Baud rate of 115200 bps.

## 3 CHANNEL ADC CONTROL UNIT FOR ADC128S022

· Created a control unit that communicates to the ADC128S022 using the SPI Protocol using Verilog HDL.

#### IMPLEMENTED DIJKSTRAS SHORTEST PATH ALGORITHM IN VERILOG HDL

· Implemented path finding algorithm which is to be used in the creation of a path finding robot.

#### ELEVATOR CONTROL UNIT USING 8051 MICROCONTROLLER AND EMBEDDED C

· Control Unit was designed keeping in mind the various functionalities of an elevator.

## **Research Interest**

# **NETWORK ON CHIP (ONGOING)**

· NoC using Mesh topology using a DyaD routing algorithm (for 4x4 SoC network).

# **Online Courses and Certifications**

#### BEGINNING C++ PROGRAMMING - FROM BEGINNER TO BEYOND

Certificate link- <a href="https://udemy-certificate.s3.amazonaws.com/pdf/UC-d1e00aa4-89c8-45e6-a0b2-b6042f73baae.pdf">https://udemy-certificate.s3.amazonaws.com/pdf/UC-d1e00aa4-89c8-45e6-a0b2-b6042f73baae.pdf</a>

## LEARN ETHICAL HACKING FROM SCRATCH

 $\cdot \ \, \text{Certificate link-} \, \underline{\text{https://udemy-certificate.s3.amazonaws.com/pdf/UC-369beff3-31ec-447e-8551-1e8349aa1b72.pdf}$ 

## **Extra-Curricular Activities**

### SCRIPT WRITER FOR COLLEGE DRAMA CLUB PRAVRUTTHI.

- · Contributed to more than 5 projects.
- · Wrote skits and street plays for both online and offline medium.

# **Additional Contact Information**

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