

# Doki Harikrishna

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LinkedIn: <https://www.linkedin.com/in/harikrishnadoki/>

GitHub: <https://github.com/harikrishnadoki>

Portfolio: <https://harikrishnadoki.github.io/Portfolio/>

## Objective

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To contribute to an organization that values continuous learning and personal growth, providing opportunities to enhance my skills and knowledge while supporting the company's mission and objectives.

## Education

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<b>BTech (ECE)</b> – Aditya Institute of Technology and Management, CGPA – 8.82	2021–2025
<b>Intermediate</b> – Sri Basara Junior College, Percentage – 93.9 %	2019 –2021
<b>SSC</b> – Ravindra Bharathi School, CGPA – 9.8	2018 –2019

## Projects

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### 2048 Game | Deployed through GitHub

- Made a fully functions 2048 puzzle game clone using JavaScript, HTML and CSS.
- Also implemented the core gameplay features of dynamic tile merging, score tracking and a game over detection.
- I handled keyboard input so the user could control the game and behavior be consistent no matter which key was pressed.
- And made sure it had a responsive layout for all screen sizes using CSS Flexbox and Grid.
- Live demo: [https://harikrishnadoki.github.io/2048\\_game/](https://harikrishnadoki.github.io/2048_game/)

### Secure and selective geographic opportunity routing against DoS attacks in WSNs

**Tools:** TCL (Tool Command Language), Ns2, Ubuntu

- Suggested Secure and Selective Authentication-based Geographic Opportunistic Routing (SSGOR) protocol for improving data security and reliability in IoT-based Wireless Sensor Networks (WSNs).
- Designed an SSI-based trust model and entropy-driven selective authentication algorithm to counter DoS attacks and maintain data integrity.
- Developed a distributed cooperative verification model to segregate attackers, cancel out redundant verifications, and avoid duplicate transmission.
- Lost 50% computational cost compared to current solutions while ensuring reliable and original data transfer, tested through extensive simulation.
- Improved the parameters like throughput, end-to-end delay, PDR and energy consumption while compared to previous technologies.

## Internship

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### Introduction to CNC systems using PLC and Step5 programming

04/2024 – 05/2024

**Organization:** Bharat Heavy Electricals Limited (BHEL), Visakhapatnam

- Hands on experience with CNC systems, converting digital design drawings to machine motions and automate manufacturing.
- PLC integration was assisted and Step5 programming was undertaken to guarantee accurate and trustworthy machine operations.
- A rich understanding of the coordination of hardware and software in modern manufacturing environments was developed.

- I worked with technical teams to debug control logic and improve system effectiveness. Practical use of industrial automation and control systems was strengthened.

## Technical Skills

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**Programming:** Java, Python, C/C++

**Development:** Basics of HTML, CSS, JS

**Database:** MySQL

**Tools & Platforms:** GitHub, ServiceNow, VS Code

**Cloud & ITSM:** ServiceNow, AWS

**Core:** Basics of Assembly Language, MATLAB, Verilog HDL, TCP/IP, OSI Layers

## Soft Skills

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Communication skills, Teamwork, Time management

## Certifications

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- Introduction to Cyber security, Cisco Networking Academy
- Productivity Enhancements and computational tools by APSSDC.
- Amazon Web Services - Cloud Computing by APSSDC.
- Java (Basic) by Hacker Rank.
- Python by Guvi (HCL Tech).

## Co Curriculars

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- Published a paper named **An intelligent HMAC-Integrated Optimization system for reliable Wireless Sensor Networks** by I2ITCON by IEEE Pune.
- Published a journal named **Secure and Selective Geographic Opportunistic Routing Against DoS Attacks** by IJRASET.
- Participated in Circuit Building competition conducted by Aditya Institute of Technology and Management.
- Presented an idea in **Smart India Hackathon (SIH)** on **Prohibition of hazardous cleaning of sewers using hazardous gas detecting device.**
- Presented an idea in **MSME** (Micro, Small and Medium Enterprises) on Train collision prevention - **The Karna System for Collision Prevention.**

## Hobbies

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- Watching Documentaries

## Declaration

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I hereby declare that the information provided above is true and correct to the best of my knowledge.

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