# GAGAN CHANDAN

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GitHub - https://github.com/gaganchandan

# RESEARCH INTERESTS

# Program Analysis, Formal Methods, Automated Theorem Proving, Functional Programming

#### **EDUCATION**

# **B.Tech in Computer Science and Engineering**

PES University Bengaluru, India

#### **EXPERIENCE**

Student Head Feb 2023 - Present

Centre for Information Security, Forensics and Cyber Resilience, PES University

Bengaluru, India

November 2022 – Present

- Participated in multiple national and international Capture The Flag (CTF) competitions, focusing on Reverse Engineering and Binary Exploitation
- Taught workshops on Reverse Engineering, Cryptography and Steganography for undergaduate students of all semesters.
- Assisted in teaching and lab setup for Cybersecurity courses offered to final year undergraduates and M.Tech students.
- Conducted hackathons and CTF competitions for over 300 students.

#### TALKS AND WORKSHOPS

#### **Introduction to Reverse Engineering**

October 2023

**PES University** 

Bengaluru, India

• Talk followed by hands on session for over 200 undergraduates

#### Introduction to Cryptography and Steganography

PES University

April 2023

Bengaluru, India

• Interactive Workshop for over 100 undergraduates

#### **ACHIEVEMENTS**

#### Capture The Flag

ctftime.org

- 2022 Annual ranking of 8th out of 4392 nationally and 190th out of 38050 globally with team ISFCR PESU (https://ctftime.org/team/166645)
- 2021 Annual ranking of 15th out of 4392 nationally and 203rd out of 36811 globally with team Ashes (https://ctftime.org/team/155001)

#### **PROJECTS**

#### pocket

A compiler for a procedural, statically typed programming language written in OCaml https://github.com/gaganchandan/pocket

#### solveit

A simple SAT solver for propositional logic written in Haskell https://github.com/gaganchandan/solveit

# goto-lang

An interpreter for a minimalistic programming language written in OCaml https://github.com/gaganchandan/goto-lang

#### TECHNICAL ABILITIES

# **Programming Languages:**

Proficient in: Ocaml, Haskell, Python, C

Familiar with: x86 assembly, C++, Lua, JavaScript, Java, Rust

# **Tools and Technologies:**

Ghidra, Pwntools, GDB, AFL++, Atheris, angr, Z3, Lex, Yacc, LLVM, Coq, Nmap, WireShark, MetaSploit, BurpSuite, Linux, Git, Docker

#### **Skills:**

Functional Programming, Compiler Design, Reverse Engineering, Fuzzing, Binary Exploitation, Exploit Development, Penetration Testing

# ADDITIONAL SKILLS

# Languages:

English (Fluent) Kannada (Native language; Fluent) Hindi (Working knowledge)

# **OTHER INTERESTS**

Football, Distance Running, Swimming, Chess, Basketball, Table Tennis