GAGAN CHANDAN

Phone: +91 994-544-7761
Email: gaganchandan341@gmail.com
Website - https://gaganchandan.com
GitHub - https://github.com/gaganchandan

RESEARCH INTERESTS

**Program Analysis, Functional Programming, Formal Methods,
Automated Theorem Proving, Type Theory**

EDUCATION

B.Tech in Computer Science and Engineering   November 2022 – Present
PES University   Bengaluru, India

EXPERIENCE

Research Intern   June 2023 - Present
Indian Institute of Science   Bengaluru, India
- Worked on static analysis of Java programs under Professor K.V. Raghavan
  at the Programming Languages Lab

Student Head   Feb 2023 - May 2024
Centre for Information Security, Forensics and Cyber Resilience, PES University   Bengaluru, India
- 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.

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

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   April 2023
PES University   Bengaluru, India
- Interactive Workshop for over 100 undergraduates

TECHNICAL ABILITIES

Programming Languages:
Proficient in: Ocaml, Haskell, Java, Python, C
Familiar with: x86 assembly, C++, Lua, JavaScript, Rust

Tools and Technologies:
Coq, Ghidra, AFL++, Atheris, angr, Z3, Lex, Yacc, LLVM, GDB, Pwntools,
Nmap, WireShark, MetaSploit, BurpSuite, Linux, Git, Docker, LaTeX, Maven

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

ACCOMPLISHMENTS

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)

ADDITIONAL SKILLS

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

OTHER INTERESTS

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