# Ivan Mladenov

Computer Science/Math Double Major, Cybersecurity Honors

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## Independent Study

**Structure and Interpretation of Computer Programs**
Abelson, Sussman (2024)

- Studied functional programming with the MIT Scheme compiler
- Built projects on topics including symbolic differentiation and memory management

## Clubs, Competitions, and Personal Projects

**Honeypot Research** (2024)

- Conducted a research project to develop effective Honeypots
- Set up highly modular Linux containers for quick deployment
- Provided deep statistical analysis to demonstrate effectiveness of certain forms of "honey"

**C Shell** (2024)

- Developed a shell in the C programming language alongside the GNU Bison Parser
- Applied knowledge of files, pipelining, process tables, and other OS concepts
- Support for I/O redirection, piping, spawning subshells, etc.

**Interpreter** (2022)

- Developed an interpreter in OCaml
- Built a lexer and parser to handle arithmetic input

**Apache Webserver** (2021)

- Self-hosted website written in PHP on a DigitalOcean Debian server running Apache and MySQL
- Designed a website and wrote an article that received over 20,000 hits on HackerNews
- Explained to other users how they can set up their own Raspberry Pi to host a site without outside services

**Math Team** (2019-2023)

- Participated and led my school's math team during high school
- Qualified to go to Urbana for state competition in 9th grade
- Explored a wide variety of topics including probability theory, geometry, etc.

## About Me

**Technical Skills** C, OCaml, Java, AVR Assembly, Scheme, GDB, Unix/Linux, Bash, Python, Swift
**Languages** Fluent in Bulgarian; Conversational Proficiency in Spanish
**Interests** Compilers, Functional Programming, Set Theory, Cybersecurity, Reverse Engineering, Math

## Education

**University of Maryland** College Park, MD (2023–Present)

- Computer Science/Math Double Major (98/120 credits completed)
- Advanced Cybersecurity Honors College
- GPA: 4.0
- President's Scholarship Student
- Relevant Courses: Algorithms, Organization of Programming Languages, Discrete Mathematics, Computer Systems, Data Structures, Object Oriented Programming, Honeypot Project Course

**Lake Park High School** Roselle, IL (2019-2023)

- 3 math dual enrollment courses through Indiana University and College of Dupage
- 17 Honors and AP courses
- GPA: 5.6429 (Weighted), 5.0 (Unweighted)
- SAT: 1560 (Math: 800, English: 760)