

# TIMOTHY KIPRUTO

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## EDUCATION

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**Cornell University** – Ithaca, NY

May 2026

**Bachelor of Science in Information Science, Bachelor of Science in Global Development** Relevant coursework:

- Introduction to Computer Science: A Design and Development Perspective
- Object Oriented Programming and Data Structures Honors & Awards:
- Dean's List 2022, 2023

## SKILLS & CERTIFICATIONS

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- **Skills** ○ **Programming Languages:** Python, Java, JavaScript ○ **Web Development:** HTML, CSS, Node.js, React ○ **Database Management:** PostgreSQL ○ **Blockchain:** Web3, DApps ○ **Data Analysis:** Numpy, Pandas
  - **Certifications:** ○ CodePath Technical Interview Prep ○ Udemmy Full Stack Web Development certification ○ Udemmy Python Pro Certification
    - Udemmy Data analysis and visualization with Python

## PROJECTS

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### Spreadsheet Formula Evaluator - Team Member | Team of 2

Developed an application to evaluate postfix formulas in spreadsheets saved in CSV format.

- Leveraged subtype polymorphism to represent expression trees containing multiple kinds of nodes.
- Processed tree data structures recursively to evaluate mathematical expressions.
- Implemented error handling using exceptions to report and respond to failed operations.
- Developed JUnit test cases for all code, using lambdas to write tests that expect exceptions. • Utilized classes from third-party libraries to enhance functionality and performance.

### Course Management System – Team Member | Team of 2

- Developed a course management system for managing student enrollments, course assignments, and administrative commands by:
  - Designing and implementing an abstraction for a mutable set of students using a resizable array data structure.
  - Ensuring data integrity and robustness through defensive programming techniques and assert statements to enforce preconditions and invariants.
  - Writing and executing comprehensive unit test cases and integration tests to validate system functionality and reliability.
  - Implementing features to add new students and courses, enroll and drop students from courses, view specific course and student information, and analyze enrollments for schedule conflicts and credit overloads.

## LEADERSHIP & AFFILIATIONS

