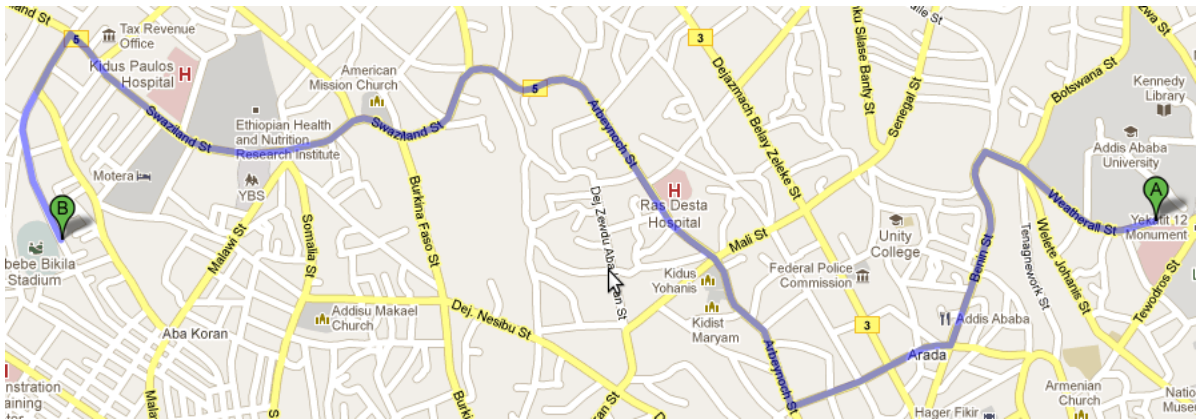# Algorithms and Programming for High Schoolers (summer course)

FREE COURSE

An *algorithm* is just a well-defined procedure for performing some task. This summer course will cover *fast* algorithms for several problems:

- Multiplying two numbers faster than how you learned in grade school!

- Calculating the fastest way to get between two places in a big city.

- Solving a system of linear equations.

$$x + 2y = 5, \quad 3x - 2y + z = 7, \quad y + z = 1$$
$$x, y, z = ?$$

- Sorting: $1\ 9\ 4\ 2\ 8\ 6 \Longrightarrow 1\ 2\ 4\ 6\ 8\ 9$

- Storing and retriving information in a database.

- . . . and much more

WHERE? Addis Ababa University   **WHEN?** July

The course will be taught in English, and students strong in math are encouraged to e-mail us to register and get more information. To get our email address, solve this puzzle:

Puzzle: 700 people enter a room, and everybody shakes everybody else's hand exactly once. How many handshakes are there total?

If the answer to the above puzzle is X, then email `algorithmsX@mit.edu`.

Course taught by Jelani Nelson (`http://web.mit.edu/minilek/www`). Jelani recently finished his PhD degree in computer science, specializing in algorithms, at the Massachusetts Institute of Technology.