

# Edmond Mbadu

Software Developer

## Contact

### Address

Salt Lake City, UT, 84116

### Phone

(215) 687-7614

### E-mail

mbadungoma@gmail.com

## Skills

Programming Languages

Pianist

Problem resolution

.Net development

Technical writing

## Software

(Proficient) Java, PHP;  
(Familiar) Python, C, C#,  
Swift, Ruby, Kali Linux, MySQL

Frameworks: Git, GitHub,  
Geographic Information  
System (GIS)

## Languages

English, French, Lingala

Versatile Software developer with experience in java for android development and php, css and javascript for web development and has built, designed and maintained multiple websites and android applications. Self-directed leader with expertise in mathematics and talented at cultivating collaborative and supportive team environment.

## Work History

2016-11 -  
2020-08

### Youth Representative and Web Designer

*Global Education Motivators, Philadelphia, PA*

- Designed with other team members the Student Leadership Conferences at the United Nations held every year having over 600 participants each year from around the world. Also, built and maintained the GEM's website where all informations are displayed.

2020-06 -  
2020-07

### Technical Support Specialist

*Big Picture Small World Inc, Remotely*

- Created support documentation that empowered and enabled user community to extend skills, leverage system features and find resolutions to questions without intervention from support team.

2016-10 -  
2020-04

### Math Tutor

*Chestnut Hill College, Philadelphia, PA*

- Assisted students individually or in small groups and helped them improve their math skills.

2019-08 -  
2020-12

### Undergraduate Research Student

*Chestnut Hill College Math & Computer Department, Philadelphia, PA*

- The Mathematics Behind Mirror Anamorphosis, Chestnut Hill College (Fall 2019): Developed a program using Java to compute and display transformations of cylindrical and spherical mirrors. The code can be found here: [https://github.com/EdmondMbadu/Anamorphosis\\_Cylinder\\_Transformation.git](https://github.com/EdmondMbadu/Anamorphosis_Cylinder_Transformation.git)  
[https://github.com/EdmondMbadu/Anamorphosis\\_Spherical\\_Transformation.git](https://github.com/EdmondMbadu/Anamorphosis_Spherical_Transformation.git)
- Elliptic Curve Cryptography, Chestnut Hill College

(Fall 2019): Used the Baby-step giant-step algorithms to test the efficiency of two most used algorithms for the SSL protocol; namely the Diffie-Hellman protocol, Elliptic-curve Diffie-Hellman and Diffie-Hellman. The code for both algorithms can be found here: <https://github.com/EdmondMbadu/Reverse-EllipticCurve.git> <https://github.com/EdmondMbadu/Reverse-Diffie-Hellman.git>

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## Education

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2016-08 -  
2020-05

### **Bachelor of Science: Mathematics And Computer Science**

*Chestnut Hill College - Philadelphia, PA*

- Graduated summa cum laude with 3.92 GPA
- Honor Thesis: Cryptography: From Classical to Post-Quantum
- Awarded the Saint Catherine National Award
- Selected Coursework: Data Structures (Fall 2017), Abstract Algebra I & II (Spring 2017, Fall 2018), Mobile App Development (Fall 2019) Real Analysis (Spring 2019), Algorithms in Artificial & Intelligence and Robotics (Spring 2019), Computer Architecture & Logic Design (Spring 2019), Web Development (Spring 2020), Topology (Spring 2020)
- Elected Captain of the Programming Team in 2018 and 2019
- Elected President of the International Student Club in 2019-2020 at Chestnut Hill College

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## Accomplishments

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- Won the Best Student Paper at the Consortium for Computing Sciences in Colleges, Eastern Region (CCSC Eastern) 2019. <https://sites.google.com/site/ccsceastern/past-conferences/2019awards>.
- Gave the following presentations:
  - Mbadu, Edmond, The Mathematics Behind Mirror Anamorphosis. EPaDel Fall 2019 Section Meeting, DeSales University. <http://sections.maa.org/epadel>

/meetings/2019/fall/students.php

- Mbadu, Edmond, Past and Modern Encryption Methods. SEPCHE Honors Conference. March 23, 2019.

- Published the following papers:

- Mbadu, Edmond, Why Elliptic Curve Diffie-Hellman is replacing Diffie-Hellman. The Journal of Computing Sciences in Colleges. October 2019. Vol 35, 218.

- Mbadu, E., Adew, M., Kuvuna, C. Worldwide Education. Designs for A World That Works for All. 2017. (pp 266-276). PA: BigPictureSmallWorld Inc.

<https://www.amazon.com/DesignsWorld-that-Works-All/dp/1986822664>

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## Interests

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Music, reading and writing