

# Youssef Victor

<http://youssefvictor.com>  
vicy@seas.upenn.edu | (484) 620-2544

## EDUCATION

### UNIVERSITY OF PENNSYLVANIA SOFTWARE ENGINEERING INTERN | BLUEFIN TRADING

MSE IN DATA SCIENCE  
Expected December 2019 |  
Philadelphia, PA  
GPA: 4.0

## EXPERIENCE

June 2018 - August 2018 | New York, NY  
Interned at Bluefin Trading during the Summer of 2018. Was responsible for the augmentation of multiple internal tools that would analyze profit and loss for trades conducted, and for trade metadata aggregation, analyzing, and SQL database storage.

### UNIVERSITY OF PENNSYLVANIA

BSE IN DIGITAL MEDIA DESIGN  
(COMPUTER SCIENCE)  
Dean's List  
Expected May 2019 | Philadelphia, PA  
GPA: 3.6

### TEACHING ASSISTANT | GPU PROGRAMMING

August 2018 - Present | Philadelphia, PA  
GPU Programming (CIS 565) covers an introduction to parallel programming techniques with a focus on graphics. Over the course of the semester, students learn the fundamentals of parallel programming and create a final project of their choosing. Projects range in fields from path tracing to machine learning.

## LINKS

Github:// [YoussefV](#)  
LinkedIn:// [Youssef Victor](#)

### TEACHING ASSISTANT | INTRODUCTION TO COMPUTER GRAPHICS

August 2015 - May 2017 | Philadelphia, PA  
Introduction to Computer Graphics (CIS 560) is a course covering a wide range of topics in the field of Computer Graphics. Topics include: OpenGL, Procedural Graphics, Catmull-Clark Subdivision and Ray Tracing.

## COURSEWORK

GPU Programming  
Machine Learning  
Big Data  
Artificial Intelligence  
Modern Data Mining  
Probability Theory  
Computing Systems  
Advanced Rendering Techniques  
Particle Based Simulation  
Dynamic Programming  
Data Oriented Programming  
Functional Programming  
Introduction to Marketing

## PUBLICATIONS

### RECREATING PRE-COLUMBIAN LIFE IN THE BAURES REGION OF THE BOLIVIAN AMAZON | SVR 2018

November 2018 | Foz Do Iguaça, Brazil  
Conducted Research with Professor Norman Badler on the Baures region of Bolivia in which my team and I were tasked to recreate the native habitat there using topographical data. The work was then presented in Virtual Reality using mo-cap data and procedurally generated assets. The paper has been accepted for publication at SVR 2018.

## SKILLS

### PROGRAMMING

Over 10,000 lines:  
C/C++ • Python • Java  
Over 5,000 lines:  
C# • Swift  
Over 2,500 lines:  
OCaml  
Familiar:  
HTML • CSS • Javascript • MySQL

## ENTREPRENEURIAL VENTURES

### SEMPER TECHNOLOGIES | Co-FOUNDER AND COO

May 2017 - December 2017 | New York, NY  
Founded a software development start-up that aids individuals and corporations in bringing their ideas to life. Semper was launched to help provide services to develop software both online and on mobile devices.

## PERSONAL PROJECTS

### POLLUX RENDERER December 2017

Developed one of the world's first Physically Based Path Tracers on an iPhone using Apple's Metal framework. Pollux runs on iOS and macOS and uses the GPU to deliver incredibly fast on-device rendering.

### AUTOMATED CRYPTOCURRENCY TRADER July 2017 - August 2017

Developed a Python script that automatically trades various cryptocurrencies such as Bitcoin, Ethereum, and other altcoins to take advantage of very strong market fluctuations.

## LANGUAGES

English  
- Fluent  
Arabic  
- Fluent

### PHOTON MAPPER May 2017

Developed a photon mapper in C++ that projects thousands of photons into a scene and produces a physically based rendering of a scene based on the unique bidirectional scattering distribution function (BSDF) of each unique material.