

# Mark Vassell

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## Education

University of Missouri - Columbia

Degree: M.E. Computer Science | Expected Graduation Date: December 14, 2018

GPA: 3.967

Degree: B.S. Computer Science | August 2012 - December 2016

GPA: 3.0

## Experience

**Boeing - Saint Louis** | May 2018 - August 2018

- Software Engineering Intern | BR&T Advanced Learning Team
- Developed a UE4 C++ plugin to connect to a weather server
- Simulated the weather events in UE4
- Loaded in DEM data into a UE4 environment
- Used Visual Studio, C++, and Unreal Engine 4.16.3
- Lead the research and implementation processes

**Boeing - Saint Louis** | May 2017 - August 2017

- IT Intern | Business and Supply Chain Systems (BSCS)
- Lead innovations by vetting ideas, and providing feedback to the innovators
- Disaster Recovery Planning (DRP) Compliance
- Proposed automation for DRP compliance that could stream line the compliance process
- If automation is implemented it is estimated to save 2,000,000 + dollars a year

**University of Missouri - Columbia (FAPRI)** | January 2017 - Current

- Developed and maintained Risk Simulation web tool
- Implemented with HTML, CSS, JS, PHP, MySQL, AccessDB, Shell Scripting, Python, and R
- Converted USDA ERS Crops Models from MS Excel
- Lead the full development life cycle

**Western Golf Association (Evans Scholars Resident Advisor)** | August 2016 - Current

- Provide leadership, guidance, and mentoring for the scholars
- Coordinate house events, and lead the house executive board
- Hold open office hours to help scholars with any issues they have

## Projects

**Cyber Defense Using Pretense for SDX-Driven Cloud Platforms** | January 2017 - May 2017

- Routed malicious users' traffic in a network to a quarantined environment
- Implemented a Software Defined Network
- Blacklisted malicious users' IP addresses
- The goal was to use pretense to trick attackers into a false sense of success
- Used the Frenetic Language, Netcat policies, GENI, and Python
- Lead the rerouting of traffic, and the Python development
- Resulted in a publication

**Reddit Posts Classification** | January 2018 - May 2018

- Classified Reddit post as Bot or Non-Bot with Machine Learning
- Training Features: word decay rate, dissimilarity among words, and average sentiment score
- Implemented with Python and scikit-learn.

**University of Missouri - Columbia Course Scraper** | January 2018

- Created an improved visual for the courses that the University of Missouri-Columbia offers.
- Scraped the data from the University's website with Python BeautifulSoup4
- Generated JSON Data that holds all the departments' information
- Implemented with D3.js, HTML5, JS, and Python

## Languages

**Communication:**

English

Jamaican Patois

**Programming:**

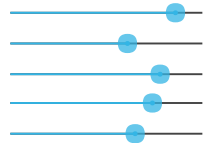
Python

C / C++

HTML, JS, CSS

PHP

SQL



## Accomplishments

**Publications:**

*Future Generation Computer Systems:*  
Intelligent Defense using Pretense  
against Targeted Attacks

[http://markvassell.com/articles/dolus\\_journal.pdf](http://markvassell.com/articles/dolus_journal.pdf)

*ICDCN:* Dolus Defense by Pretense  
<http://markvassell.com/articles/dolus.pdf>

*IEEE:* Panacea's Cloud

<http://faculty.missouri.edu/calyamp/publications/panacea-ics-dashboard-ccnc16.pdf>

**Scholarships:**

Gates Millennium Scholarship  
Evans Scholarship

**Events:**

Black and Veatch Hackathon  
Placed 3rd out of 20 groups.  
Task- Design a smart city.

## Extra Curricular

**Pygame Development:**

Recently started to develop antique 2D games (Snake, Tetris, ...)

**Mentoring / Tutoring:**

Spread awareness about S.T.E.M related fields and scholarship opportunities to minorities in my community.

**Volunteering:**

Boeing S.T.E.A.M camps

Highway Clean Ups

Evans Scholars 5K for Children's Hospital

## References

Karen Etzkorn

BR&T Systems, Support & Analytics  
Technology | CTT Leader - Services  
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Kim Humphrey

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