171 Navesink River Road Red Bank, New Jersey 908-675-6366

# Michael Abelar

miabelar@wharton.upenn.edu github.com/mike2151 Website: https://tinyurl.com/mabelar

### Education

# Philadelphia, PA

Jerome Fisher Program in Management and Technology at the University of Pennsylvania 2017-present

• Pursuing a B.S.E in Computer Science and a B.S in Economics

## Freehold, NJ

## Biotechnology High School

2013-2017

- Cumulative GPA: 97.02/100
- Ranked as #8 in U.S. News & World Report's "Best High Schools in America" and #1 in U.S. News & World Report's "Best High Schools in New Jersey"

#### **Publications**

### Research Publication

# Journal of Information Assurance & Cybersecurity

2016

- Project: A Comparative Analysis of Various Security Applications for the Android Operating System
- URL: http://ibimapublishing.com/articles/JIACS/2016/955268/

## Research Publication

# Journal of Agricultural Engineering and Biotechnology

2015

- Project: The Application and Optimization of Metal Reflectors to Vertical Greenhouses to Increase Plant Growth and Health
- URL: http://www.bowenpublishing.com/jaeb/paperInfo.aspx?PaperID=16664

### Published Book

## HTML For Novices by Novices

2015

- Introductory tutorial book for web programming in HTML
- Over 50,000 downloads
- Spanish Translation also available
- More information: https://goo.gl/v0ISLs

#### **Published Book**

## Mobile Application Ideation

2017

- Book describing the art of generating successful mobile application ideas
- https://www.amazon.com/dp/B075177K6M

### **Awards and Certifications**

# The White House, Washington, The President's Environmental D.C. Youth Award

2016

- Received national award from the Environmental Protection Agency for combating deforestation in the Pine Barrens with more efficient vertical greenhouses
- Press Release: https://www.epa.gov/newsreleases/white-house-epa-honor-environmental-educators-and-student-award-winners
- White House Blog: https://goo.gl/pVPk1k

# AT&T Bell Works, Holmdel, NJ

# Speaker at the June 2017 Holmdel Idea Summit

2017

- Spoke about Claytronics and programmable matter to over 300 researchers, entrepreneurs, and engineers
- Event website: http://theholmdelideasummit.com
- Press release: http://tworivertimes.com/bell-labs-innovation-lives-on-in-holmdel

Stockton University, NJ

# 2nd place in Computer Science at Jersey Shore Science Fair

2015

• Project: A Comparative Analysis of Various Security Applications for the Android Operating System

## The College of New Jersey, NJ

Technology Students of America State Conference 1st Place Webmaster Competition 2015

- Programmed website to raise awareness and offer solutions for electronic waste
- URL: http://dangersofewaste.byethost7.com

## Programming Experience and Qualifications

### App Developer

### Android App Developer

2014-present

- 190.000+ cumulative downloads
- Published over 20 Android Applications: https://goo.gl/23jdGk

## App Developer

## Windows App Developer

2014-present

- 100,000+ cumulative downloads
- Published over six applications
- All applications: https://goo.gl/MaqzMN

Creator Type Melee 2016-present

- http://typemelee.com
- Online competitive typing game

Intern Splendor Feb 2017- June 2017

- Worked with the WordPress platform and created webpages using HTML, CSS, JS, and PHP for client websites
- Learned and practiced search engine optimization techniques to get the company website to the first page of Google for popular search phrases: "NJ web design" and "NJ logo design"

## YouTube Channel

## Redefining Productions Programming Tutorials

2015-present

- View at https://goo.gl/q76gzH
- $\bullet\,$  Over 25 tutorials published on various languages

YouTube Channel Very Visuals 2017-present

- View at https://goo.gl/aapPDQ
- Videos of my animations created in Processing

Scientific Software WormTraq 2016-present

- View at http://wormtraq.herokuapp.com
- WormTraq is an open source online web application which is able to detect and measure Caenorhabditis elegans.
- First and only online worm detection software

Founder ByTheDigits.com 2015-present

- News website that searches the internet for news articles and refines them to remove the bias by only providing numbers and statistics
- Goal: Allow readers to formulate their own opinions on news without bias using simple statistics

• Read more about it at http://www.bythedigits.com

## Leadership and Activities

# STEM Program

# Stem Scholar in the Governor's Stem Scholars program

2015-2016

- One of 60 students in New Jersey who toured New Jersey, learned about opportunities in science, technology, engineering, and mathematics, and communicated with state leaders in STEM.
- Article in The Monmouth Journal about my involvement in the program: https://goo.gl/Tt8u9F

Club Penn Labs 2017-present

- Club that develops software for the University of Pennsylvania
- Android developer working on new features for Penn Mobile (an app that helps students manage campus life): https://goo.gl/LQ5r5p

Club PennApps 2017-present

- Developer for Penn's hackathon
- Created the application portal: https://my.pennapps.com/
- Created the landing page for PennApps 17: http://2018w.pennapps.com

Club Penn Blockchain 2017-present

- Club dedicated to learning about and developing programs for blockchain technologies
- Solidity developer for the Ethereum blockchain

## Skills

- Programming languages: Python, Java, C++, Swift, Ruby, HTML, PHP, CSS, Javascript, Jquery, Processing, XML, MATLAB, OCaml
- Software: Microsoft Suite, Adobe Flash, Adobe Dreamweaver, Adobe Muse, Adobe Photoshop, Adobe Captivate, Adobe Edge Animate, GitHub, Visual Studio, XCode, Android Studio, Google SketchUp