Tyler V. Rimaldi

✉ Tyler.Rimaldi1@Marist.edu | 📱 (845) 531-7802 | Mahopac, NY

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EDUCATION

- **Marist College**   Poughkeepsie, NY
  Bachelor of Science in Computer Science with a Concentration in Software Development;
  Minors in Mathematics, Philosophy, Information Technology, and Information Systems
  *GPA: **3.805/4.000***   *Expected May 2021*

HONORS

- Marist College **Honors Program**, Marist College **Deans' Circle** (top 3% of students), Marist College **Dean's List**
- Marist College **Teaching Assistant**, Hudson Valley **Scholar Award**, +300 Hours of **Community Service Award**

EXPERIENCE

- **IBM – Z AI & Analytics**   Poughkeepsie, NY
  Software Developer Intern   *June 2019 - Present*
  - Currently porting **Python Scikit-Learn** data science notebooks to **Java SparkMLlib** to handle larger data sets
  - Contributed to 3 (in progress) patents focused around search **optimization and lexical analysis**
  - Implemented **neural network activation functions** such as ReLU, Sigmoid, TanH, and Softmax for test simulations in C
  - **Optimized** Jenkins with parallel stages and **memoization** to halt failing test suites and to clean-up zombie processes
  - Developed a **high interaction** honeypot that mimics a server within a Docker Container – **Featured on IBM Blog Post**
  - Configured a real-time data pipeline that sends our honeypot attack data to CouchDB, all of which is hosted on IBM Cloud
  - Developed a **Python ODM, NodeJS REST API,** and **Dashboard Front-End** to visualize attack data

- **Marist College Doctorate of Physical Therapy Research Platform**   Poughkeepsie, NY
  Research Assistant & Full Stack Developer   *January 2019 - Present*
  - Engineered a **new pedagogical tool** that **enhances** manual therapy instruction and **streamlines** student learning
  - Our tool **provides** its **users** with **performance** and **progress** metrics with respect to their manual therapy training
  - Developed a web and desktop application using **ElectronJS**, **Vue/VuexJS**, **Bootstrap**, **Flask**, and **PostgreSQL**
  - Leveraged a **Dockerized microservice oriented architecture** for rapid development and deployment
  - Integrated Studio 1 Labs fabric sensor technology with our system architectures for **real-time data capture**
  - Leveraged our lightweight Flask REST API for **microservice orchestration** and **graph data processing**
  - Presented at **Con Edison's** Engineers week and accepted to the **2020 National Collegiate Honors Conference**

- **IBM – Marist Joint Study**   Poughkeepsie, NY
  Secure Cloud Grant Research Assistant & Software Developer   *May 2018 - May 2019*
  - Researched mindsets of an attacker, deceptive honeypot models, and honeynet implementations
  - Developed a **low interaction** JavaScript honeypot that sends attack data to RabbitMQ and to our data visualizer, LCARS
  - Engineered a **solution** to visualize attack data while honeypots are added to/removed from our honeynet
  - Implemented analysis tools such as line graphs (ChartJS) and attack totals on our data visualizer
  - **Managed** IBM/Marist Trusted Identity Project collaboration and organized test groups to analyze user experiences
  - Developed a simple NodeJS template for an SDK API Wrapper to demonstrate functionality for new hires
  - **Co-Authored**, **published**, and **presented** two research papers in **IEEE** proceedings

RESEARCH PUBLICATIONS AND PRESENTATIONS

- **IEEE MIT Undergraduate Research Technology Conference 2018**, Cambridge, Massachusetts:
  "A HoneyNet Environment for Analyzing Malicious Actors"
- **IEEE Columbia University Ubiquitous Computing, Electronics and Mobile Communications Conference 2018**, New York, NY:"Implementing a Mobile Identity Application in a Ubiquitous Computing Environment"
- **Enterprise Computing Community**, Poughkeepsie, NY: "Creating a New Educational Tool for Instructing Orthopedic Manual Therapy with Fabric Sensor Technology"
- **1st Place IBM Tech Connect 2018**, Poughkeepsie, NY: "Implementing a Mobile Identity Application in a Ubiquitous Computing Environment"
- **2nd Place at the 9th Annual Cybersecurity Conference at New York Institute of Technology 2018**, New York, NY: "A HoneyNet Environment for Analyzing Malicious Actors"
- **3rd Place at IBM Watson Hackathon Spring 2018**, Poughkeepsie, NY: "Library Resource Manager"

SKILLS, LEADERSHIP, AND INTERESTS

- Coursework: Software Development, Database Management, Algorithms, Calculus, Linear Algebra
- Languages: Proficient {Java, Bash, JavaScript, HTML & CSS}, Prior Experience {C, Python, Groovy, SQL, LaTeX}
- Leadership: Current {**President** of Marist College Computer Society, Marist College **Multicultural** Community **Advisory Board**}, Previous {CS Teaching Assistant, Philosophy **Tutor**, **Assistant Leader** of Sycamore Camp}
- Interests: Piano (learning), Legos, Hiking (mostly trails), Baseball, Running, Automating, Hackathons, Mentoring