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| **Domenic SanGiovanni** | | |
| domsangio@gmail.com / 978-846-3362 | | |
| **EDUCATION** | | |
| **UNIVERSITY OF MARYLAND**  Bachelor of Science in Computer Science  Bachelor of Science in Mathematics | **College Park, MD**  Expected May 2022  Expected May 2022 | |
| * Overall GPA: 3.95, Major GPA: 4.00 | | |
| **SKILLS** | | |
| * Java, C, JavaScript, Python, Golang, ReactJS, Git, SQL |  | |
| **EXPERIENCE** | | |
| **SYNOPSYS**  *SWE Internship* | **Burlington, MA**  May 2020 – Present | |
| * Member of the Web Services-Management team responsible for full-stack development of a Spring Boot Java application that scans projects for potential vulnerabilities * Redesigned a large-scale automated data collection service using Python, Beautiful Soup, and Pandas, successfully increasing speed over previous version by tenfold * Optimized the downloading of projects into Excel file format for readability and easy access * Utilized Mockito framework to develop JUnit tests for new endpoints and code | | |
| **CAPITAL ONE**  *SWE Internship* | **College Park, MD**  Jun 2019 – Feb 2020 | |
| * Designed and developed a full-stack application to monitor internal services built using Golang and React as part of a large team * Built and maintained a REST API communicating between front-end, back-end, and database, as well as created SQL queries on a PostgreSQL server * Constructed UI components, including a data visualization tab and search/filter feature for efficiently searching through applications * Tested front-end code using Mocha and Enzyme and API and database changes using Gin, requiring at least 85% code coverage | | | |
| **PARALLEL SYSTEMS LAB**  *Research Assistant* | **College Park, MD**  Jan 2020 – Present | |
| * Researches High-Performance Computing and parallel programming alongside a professor of Computer Science at the University of Maryland * Monitors and analyzes IO read/write speeds under varying levels of traffic and resources in an HPC system using IOR and MACSio * Writes bash scripts to run automated tests on the Lawrence Livermore National Laboratory and Deepthought2 machines using parallel frameworks including Spack, Slurm, and MPI | | |
| **PROJECTS** | | |
| **Simple Programming Language**   * Created a compiler and interpreter for a new programming language written in OCaml * Fully implemented loops, variables, functions, and recursive methods | | |
| **Cybersecurity Bank Project**   * Created a client and server-side bank program used for withdrawing and depositing money into users’ accounts, secured with end-to-end encryption over the network between bank and client * Generated RSA Keys for users, verified access with bearer tokens for messages, and encrypted communications with AES-256 and CBC encryption mode * Developed in a C environment using sockets for networking and the OpenSSL library for cryptographical functions | | |
| **Airbnb Rating Predictor**   * Designed a rating predictor to determine the average rating of Airbnb sites using quantitative and categorical data * Used a random forest classifier and decision trees to train and run the model * Successfully predicted ratings within an error range of less than 5.5 points out of 100 | | |
| **ACHIEVEMENTS** | | |  |
| * Participated in VTRMC and Putnam math competitions (placed top 30%) * Computer Science Honors, University of Maryland * Dean’s List, University of Maryland | | Fall 2019  Sep 2019 - Present  Fall 2018 - Present |  |