Benjamin Salzberg

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Education

University of Maryland College Park, College Park Maryland   May 2021
Selected for Scholars Program: Science and Global Change
Bachelor of Science in Computer Science
Minor in Mathematics
Specialization in Cybersecurity
GPA: 3.08

Skills

Coding and Scripting Skills:
Java, JavaScript, C, Python, X86-64 Assembly, C++, HTML5, CSS, Racket, Ruby, C#, Rust, OCAML, R, AVR Assembly, SQL, LaTeX.

Tools:
GNU/Linux, Windows, Google Firebase, Git, Wireshark, NodeJS, Microsoft Access, Microsoft Excel, MongoDB, Redcap, GitHub, VirtualBox, DNS, TCP/IP, UDP, WebRTC, .NET Entity Framework.

Experience

Ouluxx Inc.
Software Developer   May 2020-June 2021

- Conceptualized and deployed a chat client designed around WebRTC and Google Firebase allowing users and clients to connect and communicate with each other.
- Within 4 months built a server and database for running an online marketplace, allowing disparate stores to easily connect with users.
- Implemented secure online payment and account management options to allow a storefront to function for both producers and distributors.

Research Program at Johns Hopkins
IT Manager   Summers 2018, 2019

- Removed the need for manual review of patient surveys by creating a tool to automatically parse the data.
- Built a tool removing the need to search for specific values for determining patient's eligibility for studies.
- Increased the capability of nurses and physicians' assistants to record data regarding patient treatment using MS Access by simplifying and streamlining input form.
- Researched the effectiveness of medications working with an outpatient clinic.

Harbor Labs Baltimore, Maryland
Assistant Developer   March – April 2017

- Developed a peer-to-peer system applying the WebRTC API for secure transmission between different clients.
- Expanded upon a cryptography peer-to-peer client using the Stanford JavaScript library utilizing AES and public private key encryption methods.

Volunteering Experience
The Africa in Me
Software Developer   June 2021-Present

- Developed search system for system pertaining to projects, volunteers, and donations for the non-profit organization.
- Created tool to export data from a C# MVC .NET Entity Framework application connected to a SQL database as either a CSV or an Excel spreadsheet.
- Designed and implemented a system that reminded users to record volunteer records, then sent reminders if certain users had failed to complete the forms.
- Selected as volunteer of the month December 2021

Projects and Coding Experience

- Competed in Nahamcon 2021 capture the flag competition, placing 492/6491 players.
- Competed in Lockheed Martin's 2021 capture the flag competition.
- Established a website for the GRNDaD registry, a multi-site project that performs research on sickle cell disease, using Google Firebase.
- Competed in the JHacks 2019, and JHacks 2020 hackathons, created a tool in JavaScript that assisted those with reading disabilities to read text more easily, and building a web-assembly tool to assist users in coding challenges.
- Developed a tool to assist special needs students with learning the alphabet in Python using TKinter.
- Produced DNS resolver in Python capable of performing basic name resolution.
- Devised a chat server that retrieved and sent messages in Python using sockets.
- Assembled a Deterministic Finite Automata, and a Non-Deterministic Finite Automata parser and interpreter in OCAML to parse regex grammars.
- Deployed a Twitter Tweet Analyzer using Hadoop and Java.

Relevant College Courses

Machine Learning	Abstract Algebra
Introduction to Compilers	Applied Harmonic Analysis
Applications of Linear Algebra	Bioinformatics Algorithms