JAKE SANDLER

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126 Putnam Road, Garrison, NY 10524

EDUCATION

University of Maryland, College Park **|** Overall GPA: 3.95   *May 2018*
Bachelor of Science in Computer Science
Bachelor of Science in Mathematics
ACES Cybersecurity Honors Program Citation

COURSEWORK

Abstract Algebra	Cryptology	Networks
Advanced Reverse Engineering	Databases	Number Theory
Algorithms	Data Structures	Operating Systems
Applications of Linear Algebra	Graph Theory	Programming Languages
Compilers	Linear Algebra	Real Analysis
Computer Systems	Machine Learning	Software Engineering

EXPERIENCE

Appian | Software Engineering Intern   *May 2017 - August 2017*
- Simplified the process a user has to go through to create a custom, database-backed grid in Appian. This project reduced the time to build a grid by 75%
- Built frameworks to allow for creating and populating databases and tables within a unit testing environment
- Participated in a company hackathon to enable users to easily create multi-level bar charts from their data

Parsons | Software Engineering Intern   *Jan 2015 – Aug 2016*
- Used web technologies to create a system to filter and view network logs to increase the company's ability to manually view them and more easily identify security threats
- Created a cyber security challenge which involved creating a network of virtual machines, recording the network traffic on those machines, writing and infecting the network with custom malware, writing challenges, and creating a web interface for the challenge. This project has been used successfully as a recruitment tool
- Created an intrusion detection, forensics, and incident response system that runs on all Windows platforms from XP to 10 to both improve internal cyber security and to sell to other companies and current customers alike
- Fixed a poorly written website to be more readable and extendable so it could be more effectively used as both a recruitment and retention tool

UMD Department of Computer Science | Undergraduate Teaching Assistant   *Fall 2015 – Fall 2017*
- Lead a class of 30 students and holding office hours
- TA for Introduction to Object-Oriented Programming I, where I taught the basics of programming to inexperienced students
- TA for Programming Languages, where I taught multiple programming languages such as Rust, Ruby, Ocaml, and Prolog and advanced topics such as regular expressions, context free grammar, and lambda calculus
- Lead a transition from teaching Prolog to teaching Rust, which involved creating new lecture material, projects and test questions

PERSONAL PROJECTS

- An operating system for the raspberry pi, and a corresponding step-by-step tutorial

- Multiple small simulations and games built with Java AWT and Swing
- Genetic Programming algorithm written in Lisp
- Data scraping program written in python
- Low level linux framebuffer graphics written in C
- Collection of small mathematical/programming challenges in Java and Python
- Java compiled class file reader and dynamic class file writer
- Generic vector written in C
- AVL Tree written in Rust
- BitTorrent client written in Rust
- Rust library to fill out PDF Forms

SKILLS

BASH	C	C#	Clojure
Java	Lisp	OCaml	Powershell
Prolog	Python	Ruby	Rust
Win32 API	x86/64 Assembly		