

# Andrew Virts

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## Education

**Millersville University of Pennsylvania**  
Bachelor's of Science in Computer Science

**December 2020**

## Languages and Technologies

- Languages: JavaScript, C++, C, SQL, TypeScript, Java, HTML/CSS, Python
- Technologies: NodeJS, Express, MongoDB, Github, MySQL, Bootstrap, Linux, Kali Linux
- Other: Data structures and algorithms, Agile scrum methodologies, Software development lifecycle

## Projects

### YelpCamp

**MongoDB, Express, NodeJS, JavaScript**

- Created a full-stack web application that allowed users to create and visualize campgrounds from all around the world; users can add, edit, and delete campgrounds as well as review and rate other campgrounds
- Used a MongoDB backend with NodeJS and the express framework, with JavaScript handling the UI
- Handled authentication and authorization to allow users to register, log in, and access their unique resources
- Utilized geocoding to mark campground locations on an interactive 3D map upon creation

### **Unified Modeling Language(UML) diagram editor**

**Typescript, NodeJS, HTML/CSS**

- Collaborated with a team to design and build a UML diagram editor within the 4.5 month time constraint, developed prototypes using agile-scrum methodologies in order to deliver key features to show the client monthly
- Designed a CLI, capable of accepting over 20 commands from the user that allow them to create classes, functions, variables, and establish relationships between classes to help them structure and understand their systems
- Led production of a GUI that expanded upon the CLI to help users better visualize their systems, used Typescript to design a product that allows the user to create UML diagrams effortlessly, and save/load them for later use

### **Unix-like shell program**

**C**

- Developed a tiny unix-like shell program using C that is capable of parsing, interpreting, and executing arbitrary commands typed into the command line on behalf of the user following a REPL interface
- Handled several built-in system commands and a variety of command line arguments to process given information
- Processed foreground + background jobs, allowed for jobs to be suspended, allowed multiple background jobs to run concurrently, acknowledged different handlers, and reaped all zombie children upon exit to avoid resource leaks

### **Dating web service**

**PHP, MySQL, SQL, HTML/CSS**

- Designed a web service using HTML/CSS, and SQL that allowed users to sign up and provide key information about themselves that was stored in a MySQL backend so the data was persistent and could be utilized to create matches
- Created matches between users by using PHP to parse GET request JSON responses and search through our database to find users who had matching interests, users were able to effectively find people with similar interests

## Work experience

**BJ's Restaurant and Brewhouse**  
Server

**September 2018–December 2020**

- Trained new employees at various roles throughout the restaurant due to my ability to effectively train in a timely manner, new employees were able to major contributors and excelled at their jobs in just a few days
- Delivered excellent customer service to my clients and handled their specialized requests effectively
- Highly-praised for my ability to multi-task and handle any job assigned to me quickly, and efficiently