Senthil Kannan

Interim Secret Security Clearance

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SKILLS

Languages: C/C++, Java, JavaScript, Python, HTML, CSS, SQL, PHP, VBA, MATLAB
Technologies: Node.js, Express.js, jQuery, Ajax, Android, Linux, Bash, Git/GitHub, Siemens NX, SolidWorks

PROJECTS

Network Monitoring Drone
C++, SQL, Bash, Raspberry Pi, 3D Printing
- Collaborated with MITRE to develop quadcopter to monitor nearby connections and gather metadata on packages sent over WiFi/Bluetooth mesh network
- Analyzed GPS location of users, progression over time, messaging activity, and common communication networks

Battleship Online Game
React, MongoDB, JavaScript, RESTful API, Encryption
- Created online version of Battleship board game
- Coded computer opponent to play against
- Designed API to interface with users and game info

Intelligent Automatic Watering System
JavaScript, HTML, CSS, SQL, Arduino, Sensors
- Created a smart watering system that can be controlled based on weather and time
- Integrated website with database, Arduino, and multiple sensors to dynamically control system
- Tracked and analyzed system performance based on physical sensors like flow rate and soil moisture

Spotify Track Filtering Website
JavaScript, HTML, CSS, jQuery, Ajax, Node.js
- Built website to search and filter Spotify tracks based on musical properties
- Coded from scratch in under 1 week

RELEVANT EXPERIENCE

Software Engineering Immersive, *General Assembly*, Remote — May – Aug. 2020
- Developed multiple full stack web applications using latest tools and technologies in the field
- Completed 500+ hour course in 12 weeks on full stack development teaching modern industry practices

Rotational Engineer, *Pratt & Whitney UTC*, Middletown CT — Jul. 2017 – Oct. 2019
- Managed, planned, and advanced major part change implemented in all commercial engines
- Designed an entire new concept engine based on customer's requirements and prior architecture
- Redesigned major engine parts to exceed FAA part life requirements
- Modeled and 3D printed scaled down engines to be used for hands on demonstration purposes
- Created custom programs using ANSYS and Excel to perform advanced FEA to redesign a rotor
- Coded macro to analyze dispositions in under 10 minutes for non-conforming blades with complex data
- Programmed Excel macro that interfaces with NX for instant parametric sizing and visualization of prototype fan case dimensions and weight calculations

Mechanical Designer, *RMF Engineering*, Charlottesville VA — Jan. – May 2017
- Scripted in Dynamo to automate ducting in Revit models and increase efficiency
- Designed HVAC ductwork, piping, and mechanical/electrical devices for buildings

Data Analyst, *NAVFAC*, Norfolk VA — May – Aug. 2016
- Analyzed over 3 million cells of data using self-taught abilities in Access, Excel, and VBA Macros
- Designed tool to help employees quickly present statistics and data to customers in a clear format
- Optimized workflow through statistical analysis of classified data

EDUCATION

University of Virginia, B.S. in Mechanical Engineering — May 2017
Minors in Computer Science and Design Integration