

Senthil Kannan

Interim Secret Security Clearance

spk2dc@virginia.edu
571-250-7368

LinkedIn: www.linkedin.com/in/spk2dc
Portfolio: <https://spk2dc.github.io/>

Charlottesville, VA 22904
Open to relocation

SKILLS

Languages: C/C++, Java, JavaScript, Python, HTML, CSS, SQL, PHP, VBA, Ruby, MATLAB

Technologies: React, Node, Express, MongoDB, Flask, Postgres, Android, Linux, Bash, Git/GitHub, SolidWorks, NX

PROJECTS

Google Maps Trip Statistics Site

React, Python, Flask, Postgres, Node.js, Google Maps API

- Analyzed user's Google Maps location history data to develop interactive embedded maps displaying places, activities, heatmaps, latitude/longitude, etc.
- Implemented user login and large file uploading

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
- Implemented user login and encryption using Bcrypt

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 (e.g., flow rate, soil moisture, etc.)

RELEVANT EXPERIENCE

Software Engineering Immersive, General Assembly, Remote

May – Aug. 2020

- Developed 4 full stack projects deployed as websites using latest tools, technologies, and frameworks
- Completed 12-week, 500+ hour course on full stack development and modern industry practices
- Implemented Agile and Scrum methodology using Jira project tracking and Trello Kanban boards

Rotational Engineer, Pratt & Whitney UTC, Middletown CT

Jul. 2017 – Oct. 2019

- Coded macro to analyze non-conforming blades with complex data and create dispositions 5 times faster
- Built custom programs using ANSYS and Excel to perform advanced finite element analysis to redesign a rotor
- Programmed macro to interface with NX for instant parametric sizing and visualization of fan case prototypes
- 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 for hands-on demonstrations and interactive displays

Mechanical Designer, RMF Engineering, Charlottesville VA

Jan. – May 2017

- Scripted in Dynamo to automate ducting in Revit functionality and increase modeling efficiency
- Designed HVAC ductwork, piping, and mechanical/electrical devices for buildings
- Modeled and modified MEP equipment blueprints for large scale building assemblies in Autodesk Revit

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 and clearly present statistics and data to customers
- Optimized team workflow through statistical analysis of classified data

EDUCATION

General Assembly, Software Engineering Immersive

Aug. 2020

University of Virginia, B.S. in Mechanical Engineering

May 2017

Minors in Computer Science and Design Integration