**Project Proposal:**

David Yi

The Polytechnic School, Arizona State University

IFT520: Advanced Information Systems Security

Dr. Jim Helm

September 5, 2023

**Abstract**

As technology advances and becomes more interconnected, creating secure communication channels between devices in separate networks is vital. This project outlines the scope, design, development life cycle and demonstration of an application that creates automated Virtual Private Network (VPN) connections between interconnected devices in separate networks, creating an effective, secure and encrypted connection between the interconnected devices.

**Introduction/Overview**

**Problem Statement**

**Significance of Study**

**Objective**

The objective of this project is to create a user-friendly, and robust application for any user or organization that wishes to protect their data in transit between interconnected devices. This application with automatically configure the necessary authentication, encryption, and iptables rules, while also allowing the user to specify the destination source to connect to, allowing cross-platform compatibility, while also encrypting the data in transit. This application will be written in Rust (Dr. Helm, if it is okay with you, I would like to write this project in Rust as it is memory safe. If it is not allowed for me to write this program in Rust, I will write it in either C or Python depending on the route I choose for the application itself. As an open-source developer, I primarily utilize C but the Linux Kernel and several other open-source projects are currently being written or re-written in Rust so I would like to challenge myself so that I can stay relevant with the development side of the open-source community and the Linux community itself as well.)

**Design Process**

**Requirements**

**Scope**

**Development Process**

**Tools**

**Technical Description of Project**

**Testing and Results**

**Summary and Conclusions**

**References**