

# Vishal Kolla

Security Clearance: Secret (Granted 07/12/2024)

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## EDUCATION

### Purdue University (3.73/4.0)

*B.S. in Computer Science, Minors in Business Management and Psychology  
Tracks in Machine Learning and Cybersecurity, and an Entrepreneurship Certificate*

West Lafayette, IN

Aug. 2019 – May 2023

## EXPERIENCE

### Software Engineer

*Northrop Grumman*

July 2023 – Present

*Bethpage, NY*

- Implemented Mecanum based algorithms for 4 synchronously moving vehicles in C++
- Synchronized vehicles through Encoders and Network Time Protocols
- Set up UDP based P2P Networking protocol in Python to further increase robot synchronization
- Applied for and recieved over \$10,000 in extra funding for project
- Became Automation Sub-lead to work on an internal tool to automate Systems Engineering integration efforts
- Automation tool reduced 100+ work hours for the team on a monthly basis
- Developed CI/CD pipelines through Jenkins to automate testing
- Was nominated for and received BRAVO award for my work on various teams

### Software Engineer

*Stealth Startup*

May 2024 – July, 2024

*Remote*

- Full stack developer at a Pre-series A Startup working on a T3 stack
- Integrated Hostaways Property Management API to automate booking and requesting properties
- Modified database schema and moved database to AWS from Supabase

### SWE Intern

*OppFi*

June 2022 – August 2022

*Chicago, IL*

- Maintained infrastructure by utilizing Terraform and Terragrunt
- Set up CI/CD pipelines for our drift detection setup through YAML scripts on GitHub workflows
- Participated in live coding with my team to set up Kubernetes for the company
- Created security and access features through Python platforming tools to securely grant AWS access to users

### Senior Cyber Analyst

*Dell RSA Division*

January 2020 – August 2021

*West Lafayette, IN*

- Worked with a team to take down various phishing and brand abuse attacks against major global banks
- Worked with and developed Python scripts to automate many of the company's tasks which reduced our handled attack times to below 12 hours (industry bar)

## PROJECTS

### Cerberus | C++, Python

January 2025 – Present

- Developing mesh networking protocols to share content without internet access with automatic file syncing
- Product use would be to share guides, education articles and books in disaster struck or heavily censored areas

### Satellite Orbital Simulation | Python, JSON

August 2024

- Developed software to download current satellite positioning data
- Simulated flight trajectories of user inputted satellites and detected potential collisions

### Phishing Detection | Python, scikit-learn, Streamlit

February 2024 – March 2024

- Trained a Random Forrest Classifier utilizing AdaBoost to train model to identify phishing URLs
- Developed scripts to scrape WhoIs data, and HTML content of potential phishing sites to use as features
- Created a Web App with Streamlit for public access to this tool and created a user friendly front end

### Stock Prediction Program | Python, TensorFlow

June 2021 – August 2021

- Utilized LSTMs to forecast 30 days of stock prices for any stock inputted
- Trained and validated on 5 years of the stock's previous data
- Implemented sentiment analysis aspect into the program where I find how the market generally views the stock

## TECHNICAL SKILLS

**Languages:** Python, C++, Zig, Java

**Other:** TensorFlow, scikit-learn, Kubernetes, Docker, Jenkins, Terraform, Cameo