Shreyan Gupta

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Education

Drexel University September 2022 - June 2027

B.S. in Computer Science; Minor in Security Technology *Cumulative GPA: 3.49/4.0*

Selected Coursework: Computer Programming, Advanced Programming Tools & Techniques, Math Foundations of Computer Science, Software Engineering & Dev., Web Development, Data Structures, Systems Programming, Discrete Mathematics

Work Experience

Software Systems Developer Remote

Freelance *February 2021 - August 2022*

- Developed **LUA scripts** for Counter-Strike game-modification systems for **10,000+** global players using CS:GO **engine APIs** delivering a personalized interface and real-time **on-screen player statistics**
- Engineered community server infrastructure for over **120+ concurrent users** on an **Ubuntu EC2 instance**, mitigating **17 DDoS attempts** with AWS Shield & WAF, maintaining **96.4% uptime**
- Designed centralized **obfuscation algorithms** to encrypt the scripts, successfully countering **34 script hacking attempts** while bolstering customer exclusivity

Skills

Programming	Java, Python, C, C++, LUA, PineScript v5, mySQL, Bash, LaTeX
Web Development	HTML5, CSS3, JavaScript, React.js, Node.js, Three.js, Bootstrap, Flask
Cloud Computing	Amazon Web Services (EC2, Shield, WAF), DigitalOcean Droplets
Operating Systems	Linux (Ubuntu, Kali), macOS, Windows Powershell
Tools & Technologies	Git, Docker, Vim, Wordpress, Unity, Microsoft Office 365 Suite

Selected Projects

TwitFetch (September 2023)

A script which executes real time monitoring on Twitter fetching new tweets from a user database at defined intervals

- Built a real-time Twitter monitoring system using the **xRapid API** and Python libraries **(Requests, JSON)**, to track and analyze tweets from a database of users, storing the data in a **MySQL database**
- Automated live querying and extraction of **450 usernames**, fetching new tweets at regular intervals and collecting **6,000+ tweets** over **7 days** of continuous operation on an **EC2 instance**
- Used **CRUD operations** to classify stored tweets into **17 distinct categories** based on content, sentiment analysis, and user engagement metrics, manually curating a classification framework to enhance data analysis precision

TradeEase (June 2023)

An automated trading script designed to analyze market trends in real time and deliver intra-second trade signals to customers

- Developed a script in **PineScript v5** to automate the generation of **real-time trading signals**, achieving a **67% win rate** through a **2 month** period of iterative testing and refinement
- Worked with a **team of 4** to integrate the script with a discord bot using **Discord.js**, delivering over **62 precise signals** to **19 traders**, incorporating **agile** and **scrum** methodologies
- Designed an algorithm to translate technical analysis techniques such as **order block analysis** and **market swing detection** into code, optimizing the **risk-reward ratio to 1:4** for enhanced precision in trading decisions

AVA - Advanced Virtual Assistant (March 2023)

A virtual assistant built to provide visually-impaired individuals with information, addressing traditional input limitations

- Engineered an advanced virtual assistant web application using **Python**, **JavaScript** & **HTML5/CSS3** integrated with **OpenAI's DaVinci 2.0 model API** for dynamic **natural language processing** with user-spoken queries
- Achieved a **98.05% accuracy** in converting live speech to text, utilizing the **pyttsx3** Python library and a **Flask**-powered backend to process and filter **2000 microphone recordings**
- Constructed a minimal front-end interface utilizing **Three.js** and **React.js**, creating an interactive talking model with a team of 4 at the **Philly Codefest** hackathon in a **24-hour** fast-paced environment

HELL.LUA (February 2021)

A hardware-authenticated script to enhance gameplay by modifying existing UI and server-to-client communication

- Incorporated **private script loading** using string fetching from remote server to prevent direct deobfuscation
- Automated script updating to prevent unnecessary re-downloading and calibration of script for every update to users
- Implemented **hardware authentication** using GPU IDs to prevent unauthorized access and **periodic spoofing checks** to prevent third-party cracking

Certificates & Involvements

- **Java (Basic) - ** HackerRank proficiency in data structures, exception handling, OOPs etc. *December 2021*
- **Dean's List -** Merit-based award signifying academic excellence at Drexel University *March 2023*
- **Drexel Algorithms & Data Structures -** Active member of learning-based club solving complex coding challenges