Neil Goyal

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EDUCATION

Georgia Institute of Technology Atlanta, GA

Bachelor of Science in Computer Science *Expected Graduation, May 2025*

EXPERIENCE

Software Engineering Intern June 2021

Hackershala Pvt. Ltd. *Haryana, India*

- Developed a Network Intrusion Detection System (IDS) that uses machine learning to detect and flag malicious activity on a server
- Developed the random forest classifier model ($\approx$98% test accuracy) using Python and scikit-learn
- Processed and cleaned data using pandas and NumPy
- Deployed the model as a RESTful API using Python and Flask for public use

Software Engineering Intern June 2020 – July 2020

Gurugram Police Cybersecurity Cell *Haryana, India*

- Shadowed industry experts to learn more about different fields in cybersecurity, from cyber crimes and law to common vulnerabilities and how to defend against them
- Developed tools such as honeypots (decoy network systems) to assist law enforcement agencies and forensics
- Utilized Kali Linux (a Linux distro) and several tools such as Burp Suite, Nmap, and Wireshark
- Competed in and won multiple state-level Capture The Flag competitions

Research Intern June 2020 – July 2020

Sushant University *Haryana, India*

- Researched how technology could be used to diagnose and aid those with neurodevelopmental disorders
- Created a game application with an integrated diagnostic test to aid in the early detection of dementia, Alzheimer's, and similar cognitive impairments. (200+ installs on the Google Play Store)
- Developed the game using the Unity Engine and C#
- Published a research paper summarizing the project and key findings

PROJECTS

DayTrak | *github.com/neilgoyal/DayTrak* Dec. 2020 – March 2022

- Developed a school planner application using Flutter that allows students to view a personalized timetable and assignment manager (Officially adopted by my high school - 400+ installs)
- Utilized Firebase for Google Auth and storing user data in the cloud
- Served real-time data to the application using a RESTful API developed in Python and Flask

SafeSurf | *github.com/neilgoyal/SafeSurf* June 2020 – June 2021

- Developed a Chrome extension using JavaScript and HTML/CSS that uses machine learning to flag malicious and fraudulent websites
- Built an SVM (Support Vector Machine) model using Python and scikit-learn to flag the aforementioned sites
- Implemented a neural network using Python, TensorFlow, and Node.js ($\approx$97% test accuracy)

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C/C++, C#, Kotlin, Dart, Swift, GNU Octave, MATLAB, SQL, HTML/CSS
Frameworks: TensorFlow, Flutter, Node.js, Flask, Django, WordPress, Keras, PyTorch, Unity Engine
Developer Tools: Git, Docker, Firebase, Google Cloud Platform, AWS, Heroku
Libraries: pandas, NumPy, Matplotlib, scikit-learn, OpenCV, SciPy, NLTK, Requests, Theano, LightGBM, Selenium
Awards: AIME Qualifier