

# AVNEET SINGH

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## Education

**The University of Toledo: College of Engineering**

**Anticipated Graduation Date: May 2026**

*Bachelor of Science: Computer Science and Engineering*

Dean's List: Spring 2023, Spring 2024

## Experience

**The University of Toledo: College of Engineering**

**October 2023 - Present**

*IT Administrator*

*Toledo, Ohio*

- Provided technical support to 500+ users by installing and configuring desktops and laptops across the engineering department.
- Configured and maintained Windows/Linux environments, automated routine admin tasks with scripts, and applied security patches to ensure reliable and secure system operations.

**KPIT Technologies Limited**

**June 2025 - August 2025**

*Software Developer Intern*

*Novi, Michigan*

- Developed Python-based communication interfaces for Device Under Test (DUT) systems to enable real-time power mode control and status monitoring.
- Contributed to a scalable middleware activation-response library, implementing argument parsing, error handling, and modular placeholder structures.
- Collaborated with team members using Git for version control and task management.

**KPIT Technologies Limited**

**June 2024 - August 2024**

*Software Engineer Intern*

*Novi, Michigan*

- Built automated tools using Python (Pandas, PyQt5) to generate middleware configuration reports, reducing manual tracking of ECU states by 70%.
- Developed and validated data integration workflows for ECU activation/deactivation logic, improving diagnostic accuracy and supporting OEM middleware standards.

**Softage Information Technology Limited**

**June 2023 - July 2023**

*Web Developer Intern*

*Gurugram, India*

- Developed a responsive full-stack web application using Django, HTML, CSS, JavaScript, and Python, managing both frontend and backend functionality.
- Integrated full-stack features in Django with optimized backend queries, improving performance and scalability of the web application by 20%.

## Projects

**RAG OpenPDF AI ChatBot** | *FastAPI, React, LangChain, OpenAI, FAISS*

**August 2025**

- Developed a full-stack AI tool enabling users to chat with uploaded PDFs via natural language queries using OpenAI and LangChain.
- Engineered backend with FastAPI, using FAISS for vector search and React (Vite) + Tailwind CSS for the frontend.

**Network Report Generation Tool** | *Python, PyQt5, Pandas*

**August 2024**

- Built a user-friendly GUI tool to automate middleware configuration reporting and ECU state tracking.
- Streamlined diagnostic processes and significantly reduced manual reporting time by 70%.

**Multiplayer Roblox Game Development** | *Lua, Roblox Studio*

**November 2023**

- Implemented scalable client-server game logic in Lua, ensuring synchronized multiplayer interactions and maintainable code structure.
- Developed interactive UI and real-time feedback systems to improve player experience and engagement.

## Technical Skills

**Languages:** Python, Java, C, JavaScript, SQL, Lua, HTML/CSS

**Frameworks and Libraries:** Django, React, Node.js, PyQt5, Tkinter, Tailwind CSS, NumPy, OpenCV, Scapy, LangChain, FastAPI

**AI and RAG Tools:** OpenAI API, FAISS, Embedding Models, Retrieval-Augmented Generation (RAG)

**Tools and Platforms:** Git, GitHub, GitLab, VS Code, Visual Studio, Eclipse, PyCharm, PowerShell, Docker

**Cloud and Databases:** Azure, MySQL, MongoDB, SQL Server Management Studio (SSMS)