Abhi Ramtel

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EDUCATION

University at Buffalo, The State University of New York　　　　　　　　　　Buffalo, NY
Bachelor of Science in Computer Science, Minor in Cybersecurity and Mathematics　　*Aug. 2022 – May 2026*

EXPERIENCE

Tech Consultant　　　　　　　　　　　　　　　　　　　　　　　　Aug. 2023 – Present
UB Information & Technology Department　　　　　　　　　　　　　　　　*Buffalo, NY*
- Delivered comprehensive IT consultation services to over **2000** faculty, students, and alumni, resolving technical as well as security issues efficiently.
- Resolved technical issues related to computers, networking, UB applications, and accounts at walk-up locations.
- • Utilized enterprise-level tools to image and configure Windows and MacOS desktops and laptops; managed client issues with ticketing software, ensuring accurate tracking and resolution.

Software Engineering Intern　　　　　　　　　　　　　　　　　　Jan. 2024 – Present
Cytocybernetics　　　　　　　　　　　　　　　　　　　　　　　　*Buffalo, NY*
- Streamlined data pipelines to optimize algorithm performance for live electrophysiology experiments, increasing data throughput by **50%** and ensuring seamless integration with existing infrastructure.
- Enhanced GUIs for existing biotechnology equipment, embedding new features to improve functionality.
- Integrated ligand-gated models and an enhanced algorithm into the Hodgkin-Huxley/ITR frameworks, efficiently processing **720,000+** datasets in real time using parallel computing.

PROJECTS

LockedIn – Job Application Tracker | *React, PHP, CSS, MySQL, JavaScript, Git*　　Jan. 2025 – May 2025
- Spearheaded full-stack development of a job application tracker using React.js, PHP, and MySQL, featuring modular APIs, document uploads, and a Kanban-style UI for intuitive job stage visualization.
- Collaborated in a team of four, utilizing Trello for agile task coordination and progress tracking across frontend, backend, and database integration.
- Engineered secure backend logic with input sanitization, authentication planning, and protections against SQL injection, XSS, and DDoS attacks to ensure robust system reliability, ensuring data integrity and user safety.

Gun Classification CNN Model | *Python (OpenCV, TensorFlow, PyTorch)*　　Dec. 2024 – Jan. 2025
- Conducted extensive research on weapon detection and classification to address challenges in military, security, and law enforcement, with a focus on enhancing automated surveillance and response systems.
- Evaluated existing solutions for weapon classification on real-life datasets, identifying a significant performance drop from **98.4%** to **11%** accuracy due to oversanitized training data.
- Engineered a CNN model for gun classification achieving **70%** accuracy on complex, realistic datasets, surpassing baseline models by **59%**, and demonstrated potential for further enhancements.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, Shell Scripting, MySQL, PHP, LaTeX, MIPS Assembly, VHDL
Frameworks: React, Node.js, Next.js Flask, JUnit, Material-UI
Developer Tools: Jupyter Notebook, Figma, IntelliJ, Git, GitHub, Visual Studio, Expo Go, Emacs, Xpra, Docker, Google Cloud Platform, Visual Studio, PyCharm
Libraries: Pandas, NumPy, OpenMP, GTK, OpenCV, SciPy, PyTorch, PyQt, pandas, NumPy, Matplotlib
Cybersecurity & Tools: Nmap, Wireshark, JohnTheRipper, Metasploit, OpenSSL

LEADERSHIP & INVOLVEMENT

Founding President, Nepali Student Association　　　　　　　　　Dec. 2024 – Aug. 2025
University at Buffalo, Buffalo, NY
Professional Development Committee Head, UB Theta Tau　　　　Dec. 2023 – Dec. 2024
Theta Tau Mu Gamma Chapter, Buffalo, NY
Member, Outdoor Adventure Club　　　　　　　　　　　　　　Aug. 2022 – Present
University at Buffalo, Buffalo, NY