NICHOLAS WYRWAS

Phone: (224)209-0639 | Email: nick.wyrwas@outlook.com | LinkedIn: https://www.linkedin.com/in/nicholas-wyrwas/ |
Portfolio: https://github.com/nwyrwas

RESUME SUMMARY

United States Marine Corps Veteran | Software Engineering graduate with proven experience in Python, Java, JavaScript (React, Node.js), C++, and secure coding practices. Adept at leading cross-functional teams, streamlining workflows, and aligning software solutions with business objectives. Brings a mission-driven mindset, technical fluency, and a track record of delivering secure, high-performance applications across tech, healthcare, and regulated industries.

TECHNICAL SUMMARY

Programming & Frameworks: Python, JavaScript, Java, C, C++, HTML, CSS, React, Node.js, Express, Angular, Django, Django REST Framework, OpenGL, Bash

AI & Machine Learning: TensorFlow, Keras, Neural Networks, Deep Learning, Model Training and Optimization, Supervised/Unsupervised Learning, RAG Pipelines, OpenAI API

Web & Mobile Development: Full-Stack Development, RESTful APIs, Front-End/Back-End Integration, Firebase, Bootstrap, Android Development, Mobile UI/UX, Kotlin

DevOps & Tools: Git, GitHub, Docker, Postman, CI/CD (GitHub Actions), Agile/Scrum, TDD (Jest, JUnit), Google Cloud Run, Redis (Vector Search), LangSmith

Database Technologies: SQL, MongoDB, Relational & Non-Relational Databases, Data Modeling

Secure Coding & Cybersecurity: Input Validation, Buffer Overflow Mitigation, SQL Injection Defense, Reverse Engineering (Assembly/C++ Analysis, Legacy Code Documentation, Vulnerability Identification), Static and Dynamic Code Analysis, Unit Testing for Security, Encryption Techniques, Secure C/C++ Programming, OWASP Top 10

Systems Architecture & Embedded Technologies Raspberry Pi (GPIO, UART, PWN), Peripheral Device Integration (Sensors, Displays), Embedded Systems vs. Desktop Systems, Thermostat and IoT Device Programming, Hardware-Software Interfaces, Performance Optimization, System Architecture Evaluation

UI/UX & Design: Wireframing, Prototyping, User Journey Mapping, Responsive Design, Figma

Testing & QA: Unit/Integration Testing, Test Planning, Static/Dynamic Testing, Secure Development Lifecycle (SDLC), QA Documentation

PROFESSIONAL SKILLS

- **Agile Methodologies (Scrum, Kanban)**
- **Application Development**
- **Secure Software Development Practices**
- **Documentation & Technical Reporting**
- **Training, Mentorship & Technical Team Leadership**

- **Software Development Lifecycle (SDLC)**
- **Database Management**
- **Cybersecurity Awareness & Risk Management**
- **Continuous Improvement (Lean/Six Sigma)**
- **Cross-Functional Team Collaboration**
- **Deadline-Driven Project Execution**

- **System Analysis & Design**
- **APT Integration**
- **Quality Assurance & Testing (TDD/QA)**
- **Regulatory Compliance (FDA/ISO)**
- **Conflict Resolution & Stakeholder Communication/Engagement**

PROFESSIONAL EXPERIENCE

Generative AI Engineer (Internship) | Reality AI   Dec 2024 – May 2025
- Contributed to the development of Marvel AI, an AI Teaching Assistant, and Sky AI, an AI Career Coach, to transform education and career growth through generative AI technology.
- Built features for Marvel AI using technologies such as LangChain, LlamaIndex, and Retrieval-Augmented Generation (RAG) workflows.
- Implemented structured knowledge graphs to dynamically link educational content to relevant topics for efficient retrieval.
- Enhanced real-time semantic search and recommendations by leveraging OpenAI embeddings and Redis for Vector Search.
- Collaborated with a global team to develop open-source AI tools that make education more accessible.
- Deployed AI services using Google Cloud Run, monitored performance with Log Explorer, and refined outputs through LangSmith to optimize prompts and system outputs.

Full-Stack Developer (Internship) | Connectify   Dec 2024 – Feb 2025
- Designed and developed scalable web applications using Django for back-end architecture and modern front-end frameworks like React and Vue.
- Built and optimized RESTful APIs for seamless integration between user interfaces and server-side systems.
- Collaborated with UI/UX designers, QA engineers, and DevOps teams to create intuitive, production-ready solutions.
- Implemented and maintained CI/CD pipelines to automate testing, integration, and deployment workflows.
- Enhanced application performance through caching strategies, asynchronous task management, and analytics integration.
- Actively participated in agile practices, including sprint planning, daily stand-ups, and code reviews to deliver high-quality software.

Software Developer (Full-Stack) (Internship) | Radical AI   April 2024 – Aug 2024
- Created and maintained technical documentation for codebases, APIs, and workflows to support team collaboration and future development efforts.
- Built an AI career companion providing personalized coaching, mentorship, and support across all stages of the career lifecycle.
- Developed and maintained front-end features using React and Python to ensure seamless user interactions. Performed unit and integration testing to ensure software quality, identifying and fixing bugs throughout the development lifecycle.
- Integrated third-party APIs and services to expand application functionality and streamline workflows.

Manufacturing Process Leader - Training Department | Stryker Medical   Dec 2019 – Jun 2023
- Led the development and implementation of comprehensive manufacturing training programs aligned with cGMP and ISO 13485 standards.
- Managed staff onboarding, documented reviews, and cross-functional training to ensure readiness and regulatory compliance.
- Originated and approved Document Change Orders (DCOs), maintaining up-to-date SOPs and process documentation.
- Audited production floors regularly to ensure adherence to FDA and ISO 13485 requirements.
- Mentored new hires and junior team members, increasing retention and fostering a culture of accountability.
- Collaborated with stakeholders to address compliance gaps, refine processes, and align training with evolving business goals.
- Developed and tracked key performance indicators (KPIs) for onboarding efficiency, retention, and turnover analysis.

Needle Punch Operator | Stryker Medical   Feb 2017 – Dec 2019
- Conducted routine inspections and maintenance on equipment to ensure safe and reliable operation.
- Collaborated with the production team to meet daily manufacturing goals while maintaining strict adherence to quality control protocols.
- Documented production data and machine performance metrics to support process improvements and operational excellence.
- Managed raw material movement, roll stock, and performed light machine adjustments
- Adhered to all safety guidelines and company policies, fostering a compliant and secure work environment.

Infantry Rifleman | United States Marine Corps (USMC)   Aug 2013 – Dec 2016
- Executed ground combat operations, operated diverse weapon systems, maintained equipment integrity, and contributed to reconnaissance missions with precision and professionalism.
- Operated and maintained a wide range of weaponry, communication systems, and field equipment, ensuring readiness and compliance with operational standards.
- Participated in reconnaissance and surveillance missions to gather actionable intelligence and support strategic decision-making.
- Trained and collaborated with team members to enhance combat readiness, adaptability, and overall mission success.
- Conducted tactical ground operations, including offensive and defensive maneuvers, to achieve mission objectives while ensuring team safety and operational efficiency.

EDUCATION

BS Computer Science – Software Engineering | Southern New Hampshire University   Oct 2022 – Nov 2025
Manchester, NH
Southern New Hampshire University
- Honor Roll: Spring 2023, Fall 2023, Spring 2024
- Dean's List: Fall 2024, Spring 2025

Relevant Coursework:
- **Software Engineering & Development:** Software Development Lifecycle, System Analysis & Design, Programming Languages, Foundations in Application Development, Current/Emerging Trends in CS
- **Cybersecurity & Reverse Engineering:** Software Security, Secure Coding, Software Reverse Engineering, Operating Platforms
- **Data & Algorithms:** Discrete Mathematics, Applied Linear Algebra, Applied Statistics for STEM, Data Structures & Algorithms (Analysis and Design), Structured Database Environments
- **Full-Stack & Mobile:** Client/Server Development, Full Stack Development I, Mobile Architecture & Programming, UI/UX Design & Development
- **Specialized & Technical:** Computer Graphics & Visualization, Emerging Systems Architecture & Technology, Introduction to Scripting, Intro Physics: Mechanics

Computer Science | McHenry County College
Crystal Lake, IL

CERTIFICATIONS

Microsoft AI & ML Engineering Professional Certificate (In Progress)
- **Skills Acquired**: LLM Application, Microsoft Azure, Responsible AI, Natural Language Processing, Deep Learning, MLOps (Machine Learning Operations), Large Language Modeling, Data Processing, Unsupervised Learning, Generative AI, Infrastructure Architecture, Reinforcement Learning.

Google Data Analytics Professional Certificate (In Progress)
- **Skills Acquired**: Tableau Software, Professional Development, Data Analysis, Data Storytelling, Ggplot2, Data Visualization, Data Processing, LinkedIn, Data Validation, Data Literacy, Data Cleansing, Dashboard, Spreadsheets, SQL, R Programming.