

# Oluwaniifemi "NF" Emmanuel

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## EDUCATION

### Minerva University

Bachelor of Science, Computer Science & Artificial Intelligence (1% acceptance rate)

San Francisco, CA

Sep 2023 – May 2027

- Relevant Coursework: Data Structures & Algorithms, Formal Analysis, Complex Systems, Linear Algebra

## EXPERIENCE

### Process Optimization Intern, UL Solutions

May 2025 – Aug 2025

Fremont, CA

- Collaborated with engineering team to integrate Python automation scripts, reducing test data errors by 50% across product lines
- Analyzed workflow data using statistical methods and data visualization libraries to identify bottlenecks and optimize processes
- Redesigned operational workflows that reduced project timelines by 3 weeks, saving clients \$XM+ through process optimization
- Implemented systematic validation protocols ensuring regulatory compliance across 200+ SAR technical test procedures

### Product Builder, Google Academic Collaboration

Sep 2023 – May 2024

San Francisco, CA

- Developed 4 product features for Google Photos platform, collaborating with 5-person cross-functional engineering team
- Built interactive prototypes using Figma and conducted quantitative analysis on user behavior from 50+ participant studies
- Improved user engagement by 40% through data-driven iteration cycles and A/B testing frameworks
- Analyzed engagement metrics and implemented testing methodologies to validate feature performance improvements

### Cybersecurity Risk Assessment Analyst, Proficient Dynamics LLC

Jun 2024 – Jul 2024

Cranston, RI

- Developed comprehensive risk assessment frameworks and technical documentation for enterprise security systems
- Created cybersecurity roadmaps across 20 security domains through systematic analysis and technical specifications
- Designed training materials translating complex security concepts into actionable technical recommendations

## TECHNICAL PROJECTS

### Tic-Tac-Toe with Minimax AI | Kotlin, Android SDK, Coroutines, Game Theory

- Engineered Android game implementing minimax algorithm with alpha-beta pruning for optimal AI gameplay
- Optimized performance using Kotlin coroutines for asynchronous calculations and non-blocking UI operations
- Architected modular game engine with separate logic/presentation layers and Intent-based navigation system

### Static Site Generator | Python, Jinja2, File I/O, GitHub Actions

- Developed Python-based generator with Jinja2 templating engine and real-time file system monitoring
- Implemented two-repository architecture with CI/CD pipeline using GitHub Actions for automated deployments
- Designed template inheritance system using recursive directory traversal and dynamic content injection

### UNO Card Game REST API | Python, Flask, REST, OOP, JSON

- Built full-stack UNO implementation with Flask REST API supporting complete game rules and state management
- Designed object-oriented architecture with Card, Deck, and GameState classes using OOP design patterns
- Implemented AI opponent system with configurable heuristic algorithms and JSON-based state serialization

### Game Night - Progressive Web App | React, JavaScript, Service Workers, Vercel

- Founded and launched installable PWA saving friend groups \$5/week on party game costs with offline functionality
- Implemented drag-and-drop player ordering with React state management and game state persistence
- Deployed responsive web application to Vercel with automated builds and cross-platform compatibility

### ProofScript - Turing-Complete DSL | Python, Lark Parser, Language Design

- Built Turing-complete DSL from scratch using Lark parser library with lexer, parser, and interpreter implementation
- Designed context-free grammar supporting variables, expressions, control flow, and algorithm specifications
- Implemented interpreter with input-based execution limits preventing infinite loops via step counting

## TECHNICAL SKILLS

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

**Frameworks & Tools:** Flask, Jinja2, React, Android SDK, Git/GitHub, REST APIs, Coroutines, Service Workers

**CS Fundamentals:** Data Structures & Algorithms, OOP Design Patterns, System Architecture, Parser Design