Kirk Lefevre

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Education

University of Central Florida Aug 2021 – May 2025

Bachelor of Science in Computer Science, Minor in Mathematics *GPA: 3.4*

Experience

NextGen IT - ML July 2025 – Present

Souther Glazer's Wine & Spirits *Miramar, FL*

- Constructed a collection of AI agents to assist analysts in diagnosing the cause of low performance Demand Forecasting Units & common supply chain hiccups, increasing diagnostic efficiency by 70%.
- Assisted in adding logging, refactoring, & generally improving existing ML pipelines for improved efficiency, updatability, & readability.

Enterprise Quality Intern May 2024 – Aug 2024

Johnson & Johnson *Miami, FL*

- Integrated generative AI capabilities into the team's flagship software, enhancing data retrieval efficiency by 65% & improving relevance across departments.
- Designed an all-in-one portal consolidating 4+ applications into a single interface, reducing user navigation time by 83% & increasing user satisfaction.
- Led data cleaning & updating initiatives, standardizing 3,000+ outdated & inconsistent records & enhancing data integrity.

Software Developer Intern May 2023 – Jan 2024

Limbitless Solutions *Orlando, FL*

- Spearheaded the integration of TensorFlow Lite's DeepLabv3 model into a Flutter Android app, achieving 70% accuracy & boosting performance by 25% with a custom Machine Learning model.
- Optimized an AR mapping app for Mac, increasing speed by 80% & accuracy by 90% using Apple's vision framework.
- Collaborated across interdisciplinary teams to deliver high-quality, user-centric solutions, employing agile & scrum methodologies.

Projects

HTTX: HoloTable Top Exercise | *C#, Unity, HighGround* Sept 2024 – Apr 2025

- Engineered a 7-phase system with bidirectional navigation, enabling instructors to dynamically progress or revert scenarios while preserving NPC states.
- Optimized custom pathfinding algorithms to ensure smooth movement across complex environments.
- Ported simulation to Android & iOS, including a physics & pathfinding redesign, achieving near-native performance.
- Developed core interaction systems (e.g., driving, shooting) & role-specific UI components adapted for mobile & PC.

PokeType AI | *Python, PyTorch, Pandas* Nov 2024 – Dec 2024

- Designed & trained a PyTorch CNN (custom architecture with dropout/augmentation) to classify Pokémon into 16 possible types (e.g., Water, Fire, Psychic), achieving 90% accuracy.
- Engineered a dynamic dataset loader to address class imbalance, ensuring equal representation across types with 500+ images per category.
- Implemented early stopping, LR scheduling, & heavy augmentation (flips, rotations, color jitter) to prevent overfitting on limited data.

Virtual Machine | *C* Feb 2023 – May 2023

- Developed & optimized a Virtual Stack Machine in C, establishing a self-contained programming environment with 100% accurate variable storage & arithmetic operations.
- Constructed a Virtual Lexer that successfully parsed & tokenized 100% of program commands, improving the stack machine's interpretive capabilities & reducing parsing errors by 35%.
- Crafted a PL/0 Code Generator that improved system performance by 25% & reduced compilation time by 20% through efficient translation of high-level commands into PL/0 instructions.

Technical Skills

Languages: C, C++, C#, Java, JavaScript, Typescript, HTML/CSS, Python, Haskell, MySQL
Frameworks: NodeJS, ExpressJS, ReactJS, NextJS, JQuery, Flutter, Jest, Tensorflow
Developer Tools: Git, Github, XCode MongoDB, SQL, Firebase, Heroku, Vercel, Pandas, Matplotlib