Alexander Winkler

• Portfolio

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Education

Eastern Florida State May. 2021 – Aug. 2025

Bachelor of Applied Science in Software Development

Melbourne, FL

• Degree GPA 4.0

Experience

Police Officer Jan. 2022 – Jan. 2023

City of Rockledge Rockledge, FL

• Led emergency responses, demonstrating the ability to take charge and produce detailed precise reports to ensure thorough documentation.

• Clearly conveyed information during high-pressure situations, ensuring accurate decision-making and precise reporting.

Teaching Assistant

Jan. 2025 – May 2025

Android App Development

Melbourne, FL

- Provided one-on-one support to two classmates throughout the semester with Android Studio setup, Kotlin debugging, and mobile app development.
- Assisted with eight Android projects, helping both students achieve final grades of A through consistent technical guidance.

Projects

Amazon Employee Search Tool | Amazon RDS, Vercel, Next.js, FastAPI, Python, SQLite, Link

- Identified compromised data affecting thousands of senior and executive level Amazon employees, directly prompting a AWS security response.
- Engineered a scalable **full-stack** application on Vercel using **Next.js** and **FastAPI**, enabling real-time querying of a breach database containing email addresses and phone numbers for over 1.2 million Amazon employees
- Implemented a fully serverless backend using Python and SQLite to handle over **1.2 million** records with zero infrastructure maintenance, reducing operational overhead, then revamped by integrating **Amazon RDS** using MySQL.

Ethical Scraper | Python, SQLite Link

- Achieved 95% accuracy parsing 1,000+ pages at 50 pages per minute, extracting sensitive PII from multiple malicious forums.
- Developed a custom Python session handler to dynamically update authentication cookies and bypass Cloudflare's **BIC** anti-bot protections, enabling uninterrupted scraping.
- Leveraged BeautifulSoup to extract 10,000+ records, writing them to an integrated **SQLite** database for optimized storage and fast querying.

Weather Satellite | Python, React, Javascript, Git Pages, HTML/CSS Link

- Fulfilled the positions of **PM** and **Tech Lead** by managing a team of 3 developers and guiding from initial requirements to debugging.
- Redesigned a Python/Tkinter desktop app into a scalable React.js frontend with **OpenWeather API** integration and full mobile compatibility.

UAV Specs Explorer | React, Javascript, Git Pages, CSS/HTML Link

- Developed a React-based search tool to query 13,000+ military drones, dynamically retrieving technical specifications in real-time from the **Wikimedia API**.
- Optimized search to return 15+ specifications per query in under 500ms

Technical Skills

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

Developer Tools: VS Code, Eclipse, Google Cloud Platform, Android Studio, NetBeans, SQLite, MongoDB, Git

Technologies/Frameworks: Vercel, GitHub, React, React.js