

Nicholas Alejandro

nalejandro4884@gmail.com — (336) 840-8059 — linkedin.com/in/nickalejandro — nickalejandro.com

EDUCATION

University of North Carolina Charlotte, Charlotte, NC

Expected: May 2027

Bachelor of Science in Computer Science

Majors: Computer Science, Statistics

Related Courses: Data Structures and Algorithms, Logic and Algorithms, Backend Design, Frontend Design, Database Design.

WORK EXPERIENCE

Wunderlich-Malec Engineering

Software Engineer Intern

Kernersville, North Carolina

May 24 – Aug 24 / May 25 - Aug 25

- Developed and implemented control and software systems for onsite engineering projects.
- Designed and implemented automation tools that reduced multi-day office tasks to less than 2 hours.
- Built and tested VBA and Python scripts that automate data transfer, validation, and analysis in Excel.
- Designed AI-integrated automation pipelines using Microsoft Power Automate and Azure to streamline information processing and cross-departmental workflows

PROJECTS

DeltaV Alarm Monitoring System

Project: Python (Tkinter, asyncio), SQLite, Docker, Systemd, aiomsplib

June 2025 - August 2025

- Developed a desktop application for on-site operators to monitor real-time DeltaV telemetry data, authenticate users, and manage alerts.
- Implemented a socket-based monitoring service that tracked tag state transitions and triggered GUI callbacks, reducing downtime response times.
- Engineered alerting workflow with bcrypt-secured authentication, PIN-based credential caching, asynchronous email/SMS dispatch, and audit logging.
- Containerized deployment with Docker and systemd provisioning scripts, enabling automated backups, upgrades, and reliable recoverability.

Excel Builder Utility

Project: Electron, JavaScript, SheetJS (xlsx), HTML/CSS

June 2025 - August 2025

- Built an Electron-based desktop tool to convert Excel workbooks into DeltaV-ready UTF-16LE tab files with configurable row offsets and live sheet previews.
- Engineered a browser-side pipeline using SheetJS to normalize cell widths, trim invalid symbols, and guarantee encoding correctness for industrial control imports.
- Packaged for Windows with electron-builder, delivering native menu shortcuts, drag-and-drop UX, and automated download workflows for control-room operators.

Stock Trading Bot

Project: Python, Streamlit, Electron, OpenAI API, Alpaca API

November 2025-Present

- Built an AI-powered algorithmic trading bot with real-time signal validation using GPT-4o, integrating pre-market analysis and dynamic position sizing based on confidence scores
- Developed multiple trading strategies (mean reversion, VWAP hybrid, Fibonacci pullback) with configurable risk management, trailing stops, and multi-timeframe confirmation
- Engineered a backtesting engine processing 1-minute OHLCV data from Polygon.io and Alpaca APIs, with regime detection and performance analytics
- Packaged as a standalone desktop application using Electron with a Streamlit-based control panel for real-time monitoring and strategy configuration

SKILLS

- **Programming Languages:** Java, Python, HTML, CSS, JS
- **Technical:** Network Administration, Windows and Linux Administration and Troubleshooting. Rockwell Automation, PlantPAX
- **Developer Tools:** GitHub, VS Code.
- **Operating Systems:** Windows, Linux