

ALLAN ILYASOV

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SUMMARY

Driven software engineer with hands-on experience building and deploying Gen/Agentic AI-powered applications and assisting a consumer business with tech enablement, analytics, and better decision-making. Motivated by difficult problems where data, engineering, and real-world impact intersect; skilled in machine learning and novel AI, full-stack development, and cloud infrastructure; experience designing consumer products with an eagerness to continuously learn in this rapidly evolving field.

EXPERIENCE

Software Engineer & Operations Manager – Uncle Edik’s Pickles

December 2019 – Present

- Grew a home-based pickle start-up and supported its growth into a brick-and-mortar factory and national brand.
- Created and maintained multiple web pages on uncleedikspickles.com, accessed via QR codes on product packaging.
- Built self-validating Apps Script pipeline delivering business intelligence on 5+ years of messy payroll data.
- Manage ingredient/supply inventory, nationwide shipments on Shopify, and \$10K+ in weekly wholesale deliveries.
- Engineered Google Apps Script automation to streamline wholesale invoicing, eliminating manual copy-pasting.
- Trained & led a team of 5 in production of thousands of jars per week, ensuring NYS Food Safety compliance daily.

Graduate Research Assistant – St. John’s University

September 2025 – May 2026

Codify AI – Advancing Education Through Generative AI & LLM (Dr. Fazel Keshtkar):

- Product manager & lead architect of codifyai.org, an AI-powered programming tutor using LangChain agents, Claude Haiku 4.5 via AWS Bedrock, and RAG for streaming, context-aware tutoring in Java, Python & SQL.
- Architected initial SQL database schema and backend queries, later migrating the system to DynamoDB.
- Designed production-ready AWS infrastructure (Elastic Beanstalk, Route 53, HTTPS) with Docker containerization.
- Built React-based adaptive learning platform with persistent state management and real-time progress tracking.
- Earned “Commercializable Project” award at the 2025 St. John’s University Student Research Conference.
- Published research in the FLAIRS-39 (2026) proceedings. doi.org/10.32473/flairs.39.1.141554

Open-Source Software Contributor – IBM Research

December 2025 – May 2026

- Implemented xlsx-to-oscal-poam, converting FedRAMP POAM Excel spreadsheets into OSCAL JSON (~1,000 lines).
- Navigated multi-stage CI/CD (lint, typecheck, pre-commit, cross-platform test matrix) until all checks passed.
- Wrote end-user documentation and a tutorial published to the project's reference docs site: [oscal-compass.dev/...](https://oscal-compass.dev/)

SELECT PROJECTS

TaxSnap – Receipt Management App | github.com/allanilya/TaxSnap

- Built an iOS app letting users scan receipts offline, auto-extracting merchant, date, and amounts with on-device OCR.
- Integrated OpenAI embeddings with KNN classification for automatic receipt categorization across 100+ merchants.
- Implemented Core Data + CloudKit sync and multi-format export (CSV, Excel, PDF) for IRS-compliant tax records.

Time Series Forecasting for Financial Markets | github.com/allanilya/Stock-analytics

- Created ARIMA, LSTM, & GRU forecasting models across AAPL, NVDA, & LYFT, reducing RMSE by up to 82%.
- Implemented grid search across 36 ARIMA configurations and built 2-layer LSTM/GRU architectures with dropout regularization utilizing Python, TensorFlow, and Statsmodels.

EDUCATION

St. John’s University – Queens, New York

Master of Science, Data Science

May 2026

Bachelor of Science, Computer Science

May 2025

- Dean’s List 2021-2025 | Member of the Association for Computing Machinery | EPIC Mentoring Program, Student Mentor

SKILLS SUMMARY

- **Programming Languages:** Python, Java, SQL, R, JavaScript, Swift, TypeScript, C++, PHP
- **Frameworks & Libraries:** React, Next.js, Django, Flask, Spring Boot, Node.js, Bootstrap, LangChain, LangGraph, REST APIs, Pandas, NumPy, Scikit-learn, TensorFlow/Keras, PyTorch, Spark, Beautiful Soup, NLTK, OpenCV
- **Cloud & DevOps:** AWS, Docker, DynamoDB, Elastic Beanstalk, Lambda, API Gateway
- **Linguistic Skills:** Russian native speaker | Intermediate proficiency in Spanish

Work Eligibility: US Citizen