

Leeon Israel

(843) 995-8888 | leeoniisrael@gmail.com | leeoniisrael.github.io | linkedin.com/in/leeoniisrael | github.com/leeoniisrael

Education

University of South Carolina

Bachelor of Science: Computer Science | Minor: Business Information Management

Major GPA: 4.0/4.0 | Dean's List 6x, College of Engineering and Computing First-Generation Scholar

Relevant Coursework: Algorithmic Design, Data Structures and Algorithms, Database System Design, Software Engineering, Web Applications, Computer Hardware Foundations, Advanced Programming Techniques, Discrete Mathematics, Statistical Methods

Columbia, SC
Expected May 2026

Technical Skills

Languages/Frameworks: Java, JavaScript, C++, Python, HTML, Django, React, LangChain, LlamaIndex, Node.js, Express.js, SQL

Tools: MongoDB, DataBricks, Git, Nginx, Firebase, AWS, Postman, OpenSearch, Grafana, RESTful API, Web API, Selenium, Kubernetes

Professional Experience

UBS

New York City, NY
June 2025 – Present

Software Engineering Intern

- Reduced dataset testing time by **80%+** by automating realistic data generation using **TypeScript** and **faker** library integration
- Built **Python** and **Java** model context protocol servers enabling GitHub CoPilot large language model agents to trigger data lake exploration, task automation, and command line interface commands, eliminating manual database interactions
- Led development of **OpenAI LangChain** artificial intelligence system in **Python** and **React.js** to predict market risks from live news, leveraging sentiment agents and **XGBoost** prediction models to achieve **99%+** accuracy, presented to company CTO
- Designed a resume screening platform for candidate team matching, leveraging **OpenAI API** with **LangChain** and **Python** on a **React.js** application which is stored on an **Azure SQL** database, achieving a **95%** time reduction over prior methods

Catalyst Health

Columbia, SC
November 2024 – Present

Founding Engineer

- Led an automated reimbursement workflow for skilled nursing facilities using electronic medical record software, interpreting care data to fill and update Medicare and Medicaid forms for **15+** customers generating **\$450,000+** annual recurring revenue
- Built email notification system with **Django** and **AWS** achieving **100%** coverage for critical application alerts
- Integrated a machine learning pipeline for analyzation of reimbursement information from documents, integrating with **Django** for dynamic highlighting and user modification, increasing review speed by **13,100%** and improving accuracy by **99.7%**
- Developed an **AWS DynamoDB** user feedback data pipeline, capturing **100%** of user decisions for in-house model training

Artificial Intelligence Institute of University of South Carolina

Columbia, SC
January 2023 – Present

Artificial Intelligence Research Intern

- Conducted research on integration of machine learning and knowledge graphs through development of **two** research projects
- Developed **two** comparison question-and-answer models with Retrieval Augmented Generation using **LangChain** and **LlamaIndex** separately based on PDF data, increasing response accuracy by over **60%** compared to previous custom models
- Crafted **React.js** front-end application for mental healthcare artificial intelligence chatbot by scraping assessment data and programming intuitive interface application for improved symptom identification and user interaction
- Processed **10,000+** Reddit posts with **Python Transformers** and **spaCy**, applying targeted keyword replacements and speech tagging to generate training data for deception detection models, resulting in an **85%** accuracy rate and an F1-score of **83%**

John Deere

Chicago, IL
May 2024 – August 2024

Artificial Intelligence Engineering Intern

- Automated artificial intelligence **LangChain** index tool reducing data indexing efforts by more than **70%** with **Python**
- Eliminated outdated data instances, creating a system to delete outdated data from **OpenSearch** vector store upon new uploads
- Implemented a feature for generative artificial intelligence agent displaying time-framed product information in production
- Developed a Retrieval Augmented Generation tool accelerating user support by **75%+**, generating pre-populated support forms

Sponsors for Educational Opportunity

Remote
May 2024 – July 2024

Software Engineering Intern

- Completed **300+** hours of computer science and software engineering training on full-stack, data structures, and algorithms
- Built **three** full-stack applications in SCRUM teams using **Python**, **MySQL**, **React**, **Jinja**, **JavaScript**, and **API** integrations
- Developed and trained a Convolutional Neural Network real-time sign language model, achieving **98%** accuracy on datasets

Empowered Buildings

New York City, NY
June 2023 – September 2023

Full Stack Software Engineering Intern

- Utilized **Selenium** and **JavaScript** to scrape third-party financial information, reducing manual data entry time by **95%**
- Implemented **MongoDB** to connect **300,000+** documents to **React.js** website, resulted in **40%** reduction in data retrieval time
- Developed **RESTful API** to fetch data from **two MongoDB** collections, using **React.js** to create user interface displaying **7,000+** nested **API** parameters in organized table with **300,000+** data documents, efficiently routing between **12+** files