

# Ian Lingo

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## EDUCATION/CERTIFICATION

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### Texas State University

*B.S. in Computer Science*

- **GPA:** 3.58
- **Minors:** Applied Mathematics, Mass Communication
- **Honors:** Cum Laude, IEEE-HKN Honor Society (Eta Kappa Nu), TXST Honors College
- **Coursework:** Data Structures, Algorithms, Object Oriented Programming, Database Systems, Software Engineering, Linear Algebra, Computer Architecture, Internet Software Development, Computer Graphics, Computer Vision

San Marcos, TX

*Graduated: May 2026*

### San Jose State University – Open University

*Advanced Python Programming*

San Jose, CA

*Jun. 2026 – Aug. 2026*

## TECHNICAL SKILLS

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**Programming Languages (most proficient first):** Python, Java, C++, SQL, JavaScript, TypeScript, MIPS, R  
**Frameworks/Tools:** React, Next.js, Flask, Spring Boot, Gradle, Jupyter Notebook, ROS2, Docker, YOLO, OpenCV  
**Cloud/DevOps:** AWS, OCI, Git, GitHub, GitHub Actions, Atlassian (Jira, Bitbucket), CI/CD, Vercel, Firebase  
**Data:** PostgreSQL, SQL Server, BigQuery, Tableau, Pandas, NumPy, Plotly  
**Operating Systems:** Linux (Ubuntu), Windows, macOS  
**Certificates:** Google Data Analytics, OCI Foundations, AWS Cloud Practitioner (In progress)

## PROJECTS

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**IEEE TXST Website Platform** | *Next.js, TypeScript, Tailwind CSS, Vercel, Cloudflare* Dec. 2025 – May 2026

- Led a **7-member** student development team to design, build, and deploy a production web platform for IEEE Texas State University using Next.js 15 (App Router), replacing a legacy WordPress site serving **100+ users**.
- Developed responsive UI with Tailwind CSS, Framer Motion, and interactive components (Swiper), and configured Cloudflare DNS, custom domain routing, and automated **Vercel CI/CD deployment**.
- Implemented **SEO and performance optimizations** (metadata, sitemap, robots.txt, OpenGraph, image optimization).

**Chess Game Application** | *Java, Spring Boot, PostgreSQL, Docker, AWS EC2, JUnit 5* Jul. 2024 – Present

- Engineered a **full-stack** Java chess app (Swing client + Spring Boot REST API) with a multi-module Gradle build and a from-scratch **AI opponent** using negamax (alpha-beta + quiescence) that grades every move across **6 quality tiers**.
- Built an Elo-rated leaderboard on a PostgreSQL REST API; containerized with Docker and **deployed to AWS EC2** with an API-key guard, covered by **20 JUnit 5 tests** (Mockito + Testcontainers) in a GitHub Actions CI pipeline.

**MARS Robot** | *ROS2, Embedded Systems, Python, C++, YOLO, ML, Computer Vision* Sep. 2025 – May 2026

- Directed a **17-member** IEEE RAS engineering team in Agile Scrum to develop an autonomous service robot using **NVIDIA Jetson Orin Nano**, ZED 2i, RPLidar A1, ToF sensors, CAD, and embedded motor control.
- Built and deployed a **YOLOv11 Nano ML & CV pipeline** from a **229-image annotated Roboflow dataset** into a ZED 2i camera pipeline for real-time detection of visually similar industrial makerspace machines.
- Defined ROS2 integration strategy for perception and navigation, connecting Python ROS2 nodes with C++ **SLAM & Nav2** components for real-time mapping and autonomous navigation.
- Achieved **2nd Place out of 25 universities** at IEEE R5 Robotics Competition with live autonomous demos.
- Selected for a competitive **\$4,000 institutional engineering award** for autonomous robot development.

**Weather Forecasting App** | *Python, JavaScript, React, Flask, Firebase, Supabase* Sep. 2024 – Jan. 2025

- Developed a responsive **full-stack** weather app with React and Flask, implementing geolocation search, real-time updates, dark mode, Firebase hosting, Supabase backend integration, and API caching that reduced latency by **60%**.

## EXPERIENCE

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**Director, Vice President, Treasurer, and Co-Founder** Aug. 2024 – May 2026

*Boko Hackathon, IEEE, IEEE-HKN, and IEEE RAS Chapter*

*San Marcos, TX*

- Co-founded IEEE Robotics & Automation Society (RAS), scaling to **100+ members** and directing a **17-member** team.
- Managed **\$15K budget**, leveraging **SQL** to track expenses for **80+ IEEE members**, improving financial tracking.
- Raised **\$12K+** from Google, Dell, BrainTrust, UFCU, IEEE, and Charles Schwab via sponsorship outreach.

**Team Lead and Learning Ambassador (Operations Associate)**

Jan. 2021 – Jul. 2025

*Amazon*

*San Antonio, TX and Austin, TX*

- Led and trained a **10+ member** outbound team, tracking **10,000+ packages** daily, verifying shipment accuracy, and implementing process improvements that reduced truck dispatch time by **50%** in a fast-paced environment.

**Data Science & Analytics - Global Career Accelerator**

Jun. 2023 – Aug. 2023

*Intel & Grammys*

- Completed two industry-sponsored analytics projects for **Intel** and **The Recording Academy (Grammys)**.
- Analyzed large datasets using **Python (Pandas, NumPy)** and **SQL**; produced visuals and reports for stakeholders.