

Ismael Olivarez

Committed to solving real-world problems through innovative software solutions

Portfolio | [LinkedIn](#) | [GitHub](#) | ismael.olivarez@columbia.edu | (313) 828-7491 | Detroit, MI

Education

Columbia University

New York, NY

Bachelor of Arts in Computer Science – GPA: 3.42

May 2027

Courses: *Advanced Programming, Data Structures and Algorithms in Java, Advanced Software Engineering, Discrete Mathematics, Linear Algebra, Probability and Statistics*

Technologies & Disciplines

- **Languages:** Java, C, C#, Python, JavaScript, SQL, YAML
- **Frameworks & Libraries:** Spring Boot, React, Node.js, Express, Flask, Flutter
- **Developer Tools:** Git, GitHub Actions, Jenkins, Docker, Kubernetes, Postman, Firebase, AWS

Experience

Comerica Bank

Auburn Hills, MI

Back-end Software Engineer Intern – *Mobile Applications*

May 2025 - August 2025

- Reduced server load and redundant DB queries by designing an in-memory hierarchy builder in a Spring Boot microservice that assembles parent-child accounts from session-scoped data
- Cut duplicate DB queries at scale (400k+ users) by creating a caching session-level layer in Spring, maintaining consistent response times
- Automated data-retention compliance by deploying a Java-based AWS Lambda (nightly via Jenkins) to purge records ≥ 7 years old, ensuring policy adherence and keeping the datastore lean

Software Engineer Intern – *API Management & Integrations*

May 2024 - August 2024

- Automated validation and verification for 500+ APIs during migration to the cloud by writing JavaScript Postman tests and SQL reporting scripts, cutting testing time by 30% and ensuring reliable performance

Google

Detroit, MI/New York, NY

Instructor

September 2023 - May 2025

- Educated student engineers as an instructor, project manager, assessor, mentor, and facilitator of learning & culture

Projects

Timeline

Detroit, MI

JavaScript | React Native | Spring Boot | PostgreSQL | AWS S3, RDS, Lambda

July 2025 – August 2025

Mobile social networking application with fully personalized post layout and design tools

- Built a cross-platform mobile app in React Native with a Spring Boot + PostgreSQL backend on AWS, implementing a horizontal feed with a custom post creation engine supporting fully customizable layouts, colors, and formats
- Containerized the backend with Docker and deployed to a Kubernetes-managed staging environment for integration testing before production
- Implemented CI/CD pipeline with GitHub Actions to automate builds, tests, and deployments, and integrated AWS S3 for scalable image storage with Spring Boot caching for faster data loading

Plant Resilient

New York, NY

JavaScript | React | Node.js/Express.js | Python | Jupyter Notebook

January 2025 – March 2025

Full-stack web tool for determining plant compatibility by location using hardiness zone data

- Developed React frontend and Node.js backend in a 4-member agile team, delivering plant filtering across all Florida hardiness zones and serving compatibility data for 1,000+ native North American plant species
- Built a Jupyter pipeline to process 54,000 hardiness zone predictions, mapping results to GeoJSON boundaries for accurate geospatial queries and real-time recommendations

Additional

- **Languages:** English (Fluent), Spanish (Fluent)
- **Awards/ Honors:** The Gates Scholarship, HSF Scholar
- **Campus Involvement:** Hall Council – *Vice President of Finance*, Society of Hispanic Professional Engineers – *Member* (SHPE)