

Jesus Gonzalez

Software Engineer

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TECHNICAL SKILLS

Programming Languages & Databases: Python, JavaScript, C/C++, Java, SQL/MySQL/Postgres, NoSQL, Neo4j
Frameworks and Libraries: React, Next.js, Spring, PyTorch, TensorFlow, Pandas, NumPy
Developer Tools & Platforms: Git/GitHub, Docker, Jenkins, Argo, Splunk, unit testing/Jest
Cloud Platforms: AWS (RDS, EC2 – implemented RAFT for distributed systems), GCP (Cloud SQL, Compute Engine)

EDUCATION

University of California San Diego

Graduation 06/2026

Bachelor of Science, Computer Science

GPA: 3.619

Coursework: Object-Oriented Design, Advanced Data Structures, Design of Algorithms, Computer Architecture, Software Engineering, Database System Principles, Recommender Systems, Networked Services, AI: Search and Reasoning

Tutor: CSE 29 (Systems Programming), CSE 150A (AI: Probabilistic Models), CSE 151A (ML: Learning Algorithms)

Clubs: Computer Science and Engineering Society (CSES)

EXPERIENCE

Intuit – *Software Developer Intern – San Diego, CA*

06/2025 – Present

- Built the IPS Graph Playground, a React/TypeScript web application with a Java Spring service to proxy read/write requests through REST APIs to Intuit's persistent service graph DB, streamlining graph adoption across teams.
- Architected logic in TypeScript to dynamically generate request forms based on database schemas, reducing onboarding time by 40%.
- Implemented unit, integration, and end-to-end (E2E) automated tests in Jest for UI components and business logic, improving reliability and reducing regression bugs.
- Deployed services with Jenkins CI/CD pipelines and debugged distributed services using Splunk and ArgoCD logs, improving system reliability and developer confidence.

Research Assistant – *Abalone Computer Vision – UC San Diego*

04/2025 – Present

- Designed and trained convolutional neural networks in PyTorch using ResNet and alternative backbones to classify endangered abalone gonad scores from sonographic data under Dr. Edwin Solares.
- Performed hyperparameter tuning and data augmentation to improve model performance, achieving over 85% accuracy on a small, imbalanced dataset.

Lakewood HVAC Inc – *Backend Developer – CSES @ UC San Diego*

11/2024 – 06/2025

- Revamped Lakewood HVAC Inc.'s digital storefront using Next.js/React (frontend), TypeScript (business logic), and SQL (backend database) resulting in a 30% faster page load speed and a 25% increase in user engagement metrics.
- Completed 6 Git issues related to the homepage, storage functionality, and front-end storage manipulation, enabling the client to edit website information directly through a user-friendly interface on the web page.

Virtual Fashion Research – *Machine Learning Engineer – CSES @ UC San Diego*

11/2024 – 06/2025

- Developed a multi-label classification model in PyTorch to identify and categorize 15 garment types in fashion images using the DeepFashion dataset, achieving 80% accuracy and enabling the labeling of unlabeled fashion data.
- Collaborated with 4 engineers in an agile development environment through a structured 20-week development cycle, contributing to model design and optimization.
- Implemented custom solutions for efficient feature extraction and classification using Convolutional Neural Networks, fine-tuned ResNet-50 CNNs using transfer learning to improve classification accuracy.

Plink.bio – *Software Developer Intern – Remote*

10/2024 - 02/2025

- Engineered a scalable multi-tiered processing pipeline to streamline video platform metadata extraction (YouTube, TikTok, Instagram), improving video analysis accuracy by 25% and providing users with more reliable insights.
- Completed an automated scraping solution using Selenium that increased efficiency in data retrieval by 60 hours monthly, enabling faster access to vital metadata on profiles, videos, and playlists for analysis.
- Integrated Nexa.ai's lightweight LLM with PyTorch, employing YOLO and Pytesseract frameworks to achieve real-time object recognition resulting in improved analysis speed for visual data by 30%.

PROJECTS

Dev Journal (CRUD) | *HTML, CSS, Figma, JavaScript, GitHub, Puppeteer, Jest*

04/2024 - 06/2024

- Led an Agile team of 11; organized sprint planning, retrospectives, and prioritized user stories to ensure on-time delivery.
- Implemented CI/CD pipelines using GitHub Actions to automate linting, testing (via Jest), and deployment workflows, reducing manual errors and accelerating development speed by 30%.