JOSUE FLORES

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EDUCATION

Master of Science, Computer Science, *NYU Tandon School of Engineering*   ***GPA**: 3.958*   ***EGD:** May 2026*
Bachelor of Engineering, Computer Engineering, *The City College of New York*   ***GPA**: 3.670*   **June 2022**
Award(s): Best Research Presentation "The Impact of Adversarials Within CNN-Based Image Classification"   **Aug 2020**
Relevant Coursework: Data Structures, Algorithms, Operating Systems, Computer Organization & System Design, Computer Networks, Programming Paradigms, Probability & Statistics, Software Engineering-I, Principles of Database Systems, Information Security & Privacy, Interactive Computer Graphics, Machine Learning, Computer Vision, VR/AR, Big Data, Deep Learning

TECHNICAL SKILLS

- **Languages: (Proficient)** Java, Python, TypeScript, JavaScript, SQL, HTML5, CSS3, C++ **(Familiar)** C#
- **Libraries/Frameworks: (Proficient)** Spring, Spring Boot, Flask, React, Bootstrap 5, JUnit 5 **(Familiar)** PyTorch, Django
- **Data/Infrastructure: (Proficient)** MySQL, PostgreSQL, MongoDB **(Familiar)** Redis, Supabase, Firebase
- **SDLC/Software Design: (Proficient)** Agile/Scrum, REST APIs, Web Services, OOD, SOLID **(Familiar)** Microservices, SOA
- **Other: (Proficient)** Git, GitHub, Vite, Jira, Docker, OpenGL **(Familiar)** Kubernetes, AWS, Azure, Node.js, Jest

PROFESSIONAL EXPERIENCE / INTERNSHIPS

CodePath - Tech Fellow, *Engineering Education,* **Remote**   **May 2024 - Current**
- Mentored **225+** students in advanced **Data Structures & Algorithms (DSA)**, guiding them through LeetCode-style problems to sharpen both their technical and behavioral interview skills
- Hosted weekly office hours to deconstruct complex DSA concepts, fostering robust problem-solving methodologies for several algorithmic patterns

AT&T - TDP Software Engineer Intern, *Cricket Wireless*, **Atlanta, GA**   **June 2025 - Aug 2025**
- Developed a **Spring REST API** service to enhance customer personalization for a **13M+** user base by processing real-time customer-based GUID events from **Azure Service Bus**
- Decreased **MongoDB** query latency by **89%** for customer-facing microservices by engineering a consolidation service that unifies disparate customer data streams into a concise profile that updates at a specified interval
- Built and trained an **XGBoost/HistGradient ML** model with **97%** accuracy to identify and mitigate cybersecurity threats as part of a network micro-segmentation proof-of-concept
- Tech Stack: **Java, Spring, Spring Boot, Azure, MongoDB, Hoppscotch, Python, Flask, React, Docker, Kubernetes, CI/CD**

MoneyLion - Backend Software Engineer Intern, *Product Engineering*, **New York, NY**   **June 2024 - Aug 2024**
- Automated the generation of **25K+** video assets by engineering a **multithreaded Spring REST API**, drastically reducing manual content creation efforts
- Ensured service reliability by achieving **80% code coverage** through substantial **JUnit 5 unit and integration** tests
- Eliminated 1-2 weeks of recurring work by creating a **Spring** service to automate content tag assignment for **25K+** assets
- Simplified the content moderation workflow by **25%** by integrating an **OpenAI**-powered sentiment analysis service for over **180K** user comments
- Tech Stack: **Java, Spring, Spring Boot, SOA, OpenAI, Contentful, AWS DocumentDB, MongoDB, JUnit 5, Datadog**

NSF - SCRP-CCNY Research Intern, *STEM Community Research Program*, **Remote**   **June 2020 - Aug 2020**
- Constructed, trained, and evaluated **5+** distinct **Convolutional Neural Network (CNN)** architectures to perform supervised image classification
- Assessed model robustness by subjecting CNNs to **adversarial attacks** (FGSM, BIM) and analyzing the resulting impact on classification accuracy and confidence scores

PROJECTS

InVision: Multimodal AR Object Intelligence | **C#, Unity, Sentis, ARFoundation**   **GitHub** | **Dec 2025**
- Constructed a hybrid compute pipeline combining edge-based object detection (**YOLOv8 INT8**) and cloud VLM (**Gemini**) for open-vocabulary understanding; developed a center-weighted gaze algorithm to filter clutter and utilized frustum geometry to map 2D bounding boxes to persistent 3D spatial anchors

GeoGuessr AI | **Team of 2** | **Python, PyTorch, Hugging Face, Pandas, Numpy, Scikit-Learn**   **GitHub** | **Dec 2025**
- Engineered a multi-view geolocation pipeline (**StreetCLIP/DINOv3**) to predict US states/GPS coordinates by fusing 4 cardinal inputs via a Transformer Encoder, honing localized accuracy to **~94%** through 5-crop TTA/K-NN retrieval on **16k+** embeddings

Baseball Pitch & Zone Prediction | **Team of 2** | **Python, PyTorch, OpenCV, Pybaseball, Scikit-Learn**   **GitHub** | **Nov 2025**
- Architected a hybrid neuro-physical framework (**R(2+1)D-18/Neural ODE**) to predict pitch trajectories and strike zones by fusing 3D video embeddings with differentiable physics simulations using **CatBoost** regression/**RK4** solvers for optimization