

Jorge Arambula

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EDUCATION

University of California, Davis | Davis, CA

September 2021 - June 2025

B.A. - Cognitive Science

Western Governors University | Millcreek, UT

Expected Graduation December 2027

M.S. - Computer Science, AI & Machine Learning

SKILLS & TECHNICAL TOOLS

Languages: Python, Java, JavaScript, TypeScript, C, HTML/CSS, PowerShell, SQL

Frameworks & Libraries: React, Next.js, Node.js, Express, FastAPI, OpenCV, TensorFlow, PyTorch, NumPy, Pandas

Developer Tools: Git, AWS, Docker, Vite, Tailwind CSS, Firebase, PostgreSQL, Supabase, Linux, Jupyter Notebook

PROJECTS

Ansvisor | Open Source Contribution - Next.js, React, TypeScript, Supabase

- Fixed a data-correctness bug where unpaginated Supabase queries truncated at 1,000 rows and zero-visibility runs diluted scores, switching prompt/topic rankings, report PDFs, and AI-generated executive summary to a rate-based calculation.
- Refactored fan-out aggregation into a single-pass query surfacing runs-with-fanout against total runs per prompt, verifying aggregate counts against raw SQL before merging; added 14 tests covering dedup and truncation edge cases.

FieldStamp | React Native, Expo, Skia

- Built a field-documentation app that overlays timestamp, GPS-derived address, and project number directly onto jobsite photos, distributed via Miradore MDM to 200+ active field crew users.
- Engineered the overlay pipeline in Skia to composite at native photo resolution rather than screen resolution, with GPS coordinates reverse-geocoded into a human-readable address using expo-location.

Overlayr | React, TypeScript, Vite, Tailwind CSS

- Built a responsive SPA using Vite, implementing camera capture via the MediaDevices API and file ingestion via react-dropzone with drag-and-drop support across desktop and mobile viewports, with session-level photo management.
- Implemented client-side image compositing using the HTML5 Canvas API, programmatically rendering gradient overlays and formatted text (project number, timestamp, location) onto image data before export.

STIMMED OUT | JavaScript, HTML5, CSS3, Manifest V3

- Built and published a Chrome extension that gamifies web browsing by tracking site activity and converting it into an RPG progression system, complete with leveling, streaks, and unlockable minigames, live on the Chrome Web Store.
- Architected the extension's Manifest V3 service worker to drive tracking logic via chrome.alarms rather than setInterval to survive worker eviction, with state persisted to chrome.storage.local between restarts.

2048 AI Game Solver | Python, NumPy, Jupyter Notebook

- Engineered a multi-agent 2048 AI platform in Python benchmarking ExpectiMax against Minimax with Alpha-Beta pruning and a multi-heuristic evaluation function (empty space, adjacency, monotonicity), achieving a 98% success rate.

EXPERIENCE

IT Systems Administrator | MasTec Advanced Technologies

April 2025 - Present

- Engineered a Python automation using IMAP to parse account-request emails, cross-reference an Excel roster for duplicates, and trigger ServiceNow provisioning, reducing turnaround by 40% and enabling same-day fulfillment.
- Built a PowerShell script to audit a SharePoint site for duplicate files by filename match and flag outdated versions, then archive folders older than 2 years.
- Integrated the Samsung Knox API and a managed Google Play account into the MDM stack to remotely deploy managed apps and pull real-time battery, location, and status reports across a fleet of vehicle-installed devices.

IT Helpdesk | MasTec Advanced Technologies

June 2022 - April 2025

- Provided Tier 1 and Tier 2 end-user support for hardware, software, and connectivity issues across Windows and macOS systems, managing service desk tickets through full lifecycle triaging, resolving, escalating, and closing within SLA targets.