

# Michael Nichols

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## PROFILE

Software developer with experience building AI-powered applications, automation tools, and interactive games. Strong foundation in Python and C#, with hands-on expertise in computer vision, NLP, and web automation. Passionate about translating new technical knowledge into practical solutions and novel user experiences.

## EXPERIENCE

### HD Intelligence

*Product Intern*

Remote

Oct 2024 – Present

- Contributes to the development of NBA-level performance analytics for college basketball to deliver competitive insights to clients
- Builds Python automation tools leveraging computer vision with MediaPipe/OpenCV and web automation with Selenium, reducing manual data-processing time by over 90%
- Utilizes Google Workspace APIs to streamline data management workflows
- Evaluates performance benchmarks to identify opportunities for optimizing data accuracy

### Great Northwest Community Improvement Association

San Antonio, TX

*Gate Attendant*

Summer 2020

- Managed and logged guest admission, enforcing security and fostering a welcoming environment
- Operated a POS system, maintaining accurate transaction records with zero discrepancies
- Provided personalized customer service by identifying issues and communicating resolutions clearly

## EDUCATION

### Earl Warren High School

*Diploma*

San Antonio, TX

Aug 2017 – Jun 2021

## PROJECTS

### Headshots | Python, MediaPipe/OpenCV, Selenium, Google Workspace APIs

Oct 2025 – Present

- Develops an AI-powered tool that automatically retrieves athlete headshots from the web, utilizing MediaPipe/OpenCV for real-time face detection and precise image cropping, reducing an hour of manual data-processing to a few minutes
- Integrates with Google Drive API to manage and organize output images, streamlining workflow

### Wan-ko | C#, Python, Unity, OpenAI Whisper API, Character.AI API

Oct 2023 – Present

- Develops an interactive virtual puppy companion using NLP to converse and offer emotional support to users
- Designs lifelike character animations that dynamically respond to conversations, enhancing immersion and boosting user engagement

## CERTIFICATIONS

### Deep Learning Specialization | Coursera

Jul 2023

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

## SKILLS

**Languages:** C#, C/C++, Python, Lua, Java, SQL, R, L<sup>A</sup>T<sub>E</sub>X

**Developer Tools:** Git, GitHub, GCP, VS Code, Visual Studio, IntelliJ IDEA

**Productivity Tools:** Google Workspace, Microsoft Office Suite

**Natural Languages:** English, Japanese