

# Arthur Teng

n13arthurteng@gmail.com | linkedin.com/in/arthteng/ | github.com/Arthur1asdf | arthurteng.dev

## EDUCATION

**University of Central Florida**  
*Bachelor of Science in Computer Science*

Orlando, FL  
May 2028

## EXPERIENCE

### Software Engineer Intern

May 2026 - Present

*Leidos*

*Orlando, FL*

- Modernized a legacy **JavaScript** application by restructuring **500+** files into a **feature-based architecture** and resolving architectural issues, reducing code navigation time by **45%** and improving long-term maintainability.
- Built an **agile project management tool** using **Java Spring Boot, Next.js, and SQL Server** to evaluate a replacement for **Jira**, reducing dependence on a platform with licensing costs exceeding **\$100K per month**.
- Created reusable **AI-assisted developer tooling** that standardized coding, debugging, and documentation workflows across the development team.

### Software Engineer Intern

Mar 2025 - Jan 2026

*Knight Hacks*

*Orlando, FL*

- Built a **TypeScript backend service** that processed attendee check-ins, balanced class assignments, managed **PostgreSQL** records through **Drizzle ORM**, and synchronized Discord roles for a **5,000+** member server.
- Improved the internal **Next.js** admin dashboard used to manage a **1,100+** attendee hackathon, boosting organizer efficiency by **30%** through applicant management, live statistics, and optimized database performance.
- Developed and maintained **tRPC APIs** supporting attendee management, check-ins, and real-time analytics.
- Collaborated in an **Agile development environment** with regular standups and sprints, contributing via **Git pull requests** and **code reviews** within a monorepo.

## PROJECTS

### Universal Alert | *Python, TypeScript, FastAPI, React, PostgreSQL, Docker, AWS, Celery, Redis*

- Built a **job discovery and alert platform** that continuously monitors **30+** employer career sites, helping students find new internship and entry-level opportunities as soon as they are posted.
- Implemented automated scraping workflows using **Celery** and **Redis**, reducing job collection time by **90%**.
- Built data pipelines using **Python** and **PostgreSQL** to identify new job postings, prevent duplicate listings, and maintain historical records for **1,000+** job opportunities, enabling accurate tracking of newly posted roles.
- Developed **FastAPI REST APIs** to support job search, scraper monitoring, and access to job posting data.
- Deployed containerized services on **AWS** using **Docker** to support scalable job collection and processing.

### SightSpeech | *React, JavaScript, Python, OpenCV, EasyOCR API, Flask, Gemini API*

- Won **1st Place** in the Gemini API Challenge at **ShellHacks 2025** out of **240+** projects.
- Created an **accessibility tool** that enables the legally blind to intuitively tab through all detected text in their POV with simple hand gestures, providing a navigation experience very similar to browsing a website.
- Enhanced runtime by **50%** by optimizing a **computer vision** system for **Optical Character Recognition** using **EasyOCR** and **OpenCV**, reducing system load while maintaining recognition accuracy with **Gemini API**.
- Integrated MediaPipe hand gesture outputs into a **Python/Flask** backend to control OCR actions, refactoring processing across frontend and backend to improve real-time performance by **10x**.

### 3rd Person IRL | *C++, C#, WebSockets, Unity, ESP32, Arduino UNO*

- Built a **3rd-person Augmented Reality shooter** that used a live webcam rig to place virtual enemies into the player's real-world environment, allowing them to fight enemies and receive body-specific haptic feedback when hit.
- Integrated **C#** collision detection in Unity with **C++** hardware control logic, reducing communication latency to an **ESP32** by **90%** using **WebSockets** for **low-latency** hit transmission and synchronized physical feedback.
- Developed embedded control logic on the **ESP32** and **Arduino Uno** to map body collisions to relay signals.
- Designed an **event-driven pipeline** that translated body-part hit detection in Unity into synchronized muscle contractions through electrical stimulation.

## TECHNICAL SKILLS

**Languages:** Java, Python, JavaScript, TypeScript, C++, C#, C, SQL, HTML, CSS

**Libraries and Frameworks:** React, Next.js, Node.js, Express.js, Spring Boot, .NET, tRPC, Drizzle ORM, FastAPI, Flask, Tailwind CSS, OpenCV, EasyOCR, MediaPipe, Celery, Redis, Gemini API, OpenAI API

**Tools:** Git, GitHub, Linux, Docker, AWS, Cloudflare, PostgreSQL, MongoDB, Unity, WebSockets, ESP32, Arduino, Raspberry Pi