Andrew Huang

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Education

University of Florida | Gainesville, FL — May 2027
B.S. in Computer Science, Minor in Mathematics — GPA: 3.63/4.00

Coursework: Advanced Data Structures, Computer Organization, Algorithm Analysis, Operating Systems, Enterprise Software Engineering, Computer Network Fundamentals, Programming Language Concepts, Database Systems

Experience

Software Engineer Intern — May 2025 – Aug. 2025
OakenAG — *Indianapolis, IN*

- Architected an AI-powered code-review pipeline in **Java**, exposing **REST API** endpoints via a custom SDK across ten GitLab repositories, leveraging **CI/CD** pipelines for deployment, and reducing manual review by **12** hours/week.
- Integrated lease-data pipelines to produce **20+** formatted receipts/day and decreased manual creation by **80%**.
- Containerized **PostgreSQL** databases with **Docker** for consistent schema management ingestion via **DBeaver**.
- Established end-to-end tuning on AI model outputs with an **Agile** framework through **Jira** and **Confluence**, applying the whole SDLC to refine prompt engineering, improving suggestion accuracy from **85%** to **98%** over **50+** test cases.

Software Engineer Intern — May 2024 – Aug. 2024
OakenAG — *Indianapolis, IN*

- Shipped a **Java SDK** and **GCP API** to build an OCR microservice application, automatically analyzing key information from leases, improving accuracy on **100+** documents and reducing human review time by over **85%**.
- Designed case logic via **Google Vertex AI** to handle leasing details, increasing data extraction precision by **30%**.
- Built a **Spring Boot** microservice handling **10+** daily requests with **99.9%** uptime, incorporating **unit tests** and **Postman** for full test coverage and seamless data validation.

Undergraduate Researcher — Jan. 2024 – Aug. 2024
Machine Intelligence Laboratory — *Gainesville, FL*

- Engineered deep learning and machine learning models with **YOLOv7** for real-time object detection in underwater environments, improving the AUV's accuracy in identifying and classifying objects by **30%** on a **5,000+** image dataset.
- Enhanced **ROS**-based modules for mission planning, vision processing, and vehicle control, enhancing system responsiveness and reliability in dynamic underwater environments.
- Led integration of asynchronous support via custom **Python** packaging, enabling the AUV to complete **20+** missions.

Projects

HINTerview | *Python, Tkinter, OpenCV, Tesseract*

- Embedded **GenAI** and **LLM** intelligence with **LangChain RAG** pipelines to create contextual code examples and hints in real time, slashing candidate problem-solving times by **40%**.
- Engineered OCR-based data capture and preprocessing, achieving **85%** detection accuracy on live coding screens.
- Sustained **99.9%** uptime during continuous tests by building a thread-safe, event-driven GUI with asynchronous I/O.

GeoQuiz | *Python, Node, Next, Express, Firebase*

- Architected a full-stack geography learning platform with secure **Firebase Authentication**, real-time state synchronization, and full **CRUD** workflows for quizzes, badges, and progression tracking.
- Reduced client–server latency by **50%** through batched **RESTful API** calls and optimized request–response pipelines.
- Designed backend preprocessing workflows to dynamically generate quiz content and push updates with zero downtime.

Bytes of Love | *Python, Pygame, RenPy, TypeScript*

- Developed branching logic and gameplay event handlers to support **15+** unique feature scripts in a **50+** person team.
- Directed a six-person **UI/UX** sub-team to refactor layout engines, asset pipelines, and style sheets for improved visual consistency and engagement.
- Streamlined deployment of interactive storylines by integrating **RenPy** scripting with **TypeScript**-based tooling.

Technical Skills

Languages: C++, Java, Python, C, JavaScript, TypeScript, Go, Swift, SQL, ARM

Frameworks: AWS, GCP, Azure, Spring Boot, Pandas, React, DBeaver, Pygame, RenPy, NumPy, Matplotlib, Tailwind, MariaDB, .NET, Node, Next, Flask, Tkinter, Pillow, OpenCV, Tesseract

Technologies: Docker, Kubernetes, Postman, PostgreSQL, Linux, VirtualBox, Git, Firebase, Jira, Bitbucket, Confluence