

# Kenneth Lin

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## Education

**University of Florida** – Gainesville, FL  
**Bachelor of Science in Computer Science**

**Expected Graduation: Dec 2025**

**Coursework:** Data Structures & Algorithms, Computer Network Fundamentals, Operating Systems, Applied Machine Learning Systems, Information and Database Systems, Software Engineering

**Kyoto University** – Kyoto, Japan

**GPA: 3.5/4.0**

**Coursework:** Performant Programming, Cross Cultural Engineering & Design

## Relevant Skills

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

**Technologies:** Linux, React, Angular, Express, Node.js, Docker, AWS, VirtualBox, Jetson Nano

## Work Experience

**Software Engineering Intern – CogAbility**

**February 2023 – Present**

- Implemented automated AWS CI/CD pipeline, resulting in a 20% increase in engineering productivity
- Developed a real-time pose detection system using MediaPipe and OpenCV with 90% accuracy
- Engineered multi-threaded architecture to handle continuous video capture, pose analysis, and client notifications simultaneously, reducing system latency by 40%
- Designed secure real-time video streaming using Node.js REST APIs, FFmpeg, Nginx, and EC2 to host custom RTMP server, leading to 15% increase in customer engagement
- Integrated dynamic QR code generation with IBM Watson Speech API, reducing query handling time by 35%
- Collaborated in an Agile team environment, participating in sprint planning, daily stand-ups, and retrospectives to continuously improve development processes
- Utilized: JavaScript, React, Express, AWS, Watson Speech, Node.js, MediaPipe, OpenCV, Python

## Projects

**Java Compiler – Custom Compiler with AST**

**January – April 2024**

- Designed and implemented a Java compiler containing lexer, parser, analyzer, and code generator
- Leveraged regex and automata for tokenization, and context-free grammars for parsing into an Abstract Syntax Tree (AST)
- Implemented unit testing, ensuring exhaustive coverage of all edge cases
- Utilized: Java, JUnit, Regular Expressions (Regex), Git

**Weaponize – Pygame 2D Platformer**

**June – August 2023**

- Led a team to create a 2D platformer game using Python and Pygame
- Engineered persistent save system to retain player progress
- Developed core game mechanics including player movement, collision detection, and weapon handling
- Designed and implemented dynamic weapon systems, allowing players to equip, switch, and utilize various weapons with unique attributes
- Utilized: Python, Pygame, Local Persistent Data, JSON, Git

**Simple Blockchain – Blockchain Visualizer**

**November 2022**

- Constructed front-end in Angular, allowing users to visually interact with the blockchain, view blocks, and monitor transaction activities in real-time
- Developed a simple blockchain with proof-of-work algorithm with verification, private and public keys, mining rewards, and transactions
- Utilized: Angular, JavaScript, TypeScript, Bootstrap, HTML/CSS