Louis Yu

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EDUCATION

Columbia University Sept. 2023 – May 2027
Bachelor of Science in Computer Science, Minor in Entrepreneurship and Innovation *New York City, NY*

TECHNICAL EXPERIENCE & RESEARCH

Machine Learning Research Intern Jun 2024 – Sept 2024
Auburn University at Montgomery *Montgomery, AL*

- Engineered deep learning and frequency-domain models for tactile texture classification supporting assistive robotics and IoT sensing applications
- Achieved **98% classification accuracy** with CNNs on 2-second tactile snips; optimized FFT-based methods via frequency binning for real-time, low-compute deployment
- **Co-authored a peer-reviewed paper** ("Towards Tactile Texture Classification Using Low Spectral Resolution Analysis with Multi-Probes") presented at IEEE SoutheastCon 2025, supported by NSF Grant 2435093

PROJECTS

Nomzi | *Python, React Native, MongoDB, Figma, Git, Expo* Mar 2025

- **Awarded Best in Nutrition Track** at Columbia's Devfest 2025 for developing an AI-driven mobile app promoting healthy eating through gamified tracking and social challenges
- Integrated Meta's LLAMA via Groq API for real-time food classification and personalized meal recommendations
- Built backend in Python; implemented frontend in React Native after designing UI in Figma
- Used MongoDB to manage user profiles, food images, and meal data efficiently

Teamfight Tactics (TFT) Assistant | *Python, Gemini API, Git* May 2025 – Jul 2025

- Automated pipeline to scrape and parse champion, trait, and comp metadata into JSON
- Leveraged Gemini API for dynamic in-game Q&A, embedding live data into prompt context
- Developed OCR-driven game-state monitoring with voice assistant loop in a background daemon

louis-yu.net | *React, Tailwind CSS, AWS, Vite, Git* Jul 2025

- Developed fully responsive personal portfolio website with React and Tailwind CSS
- Deployed via AWS Amplify with custom domain integration
- Added animated UI, project showcases, and contact form using AOS and Formspree

OTHER EXPERIENCE

Line Cook May 2025 – Present
Asia Bistro and Seafood *Montgomery, AL*

- Prepared and plated over 200 meals a day with consistent quality and attention to food safety and hygiene standards
- Collaborated with kitchen staff to optimize kitchen efficiency and decrease customer wait time
- Assisted with inventory management and restocking, minimizing waste and ensuring smooth kitchen operations during peak hours

Waiter Jan 2015 – Sept 2023
Asia Bistro and Seafood *Montgomery, AL*

- Managed online presence and verified monthly statements, ensuring operational efficiency
- Delivered excellent customer service, multitasking in a high-pressure environment
- **Secured over $100,000** in federal (PPP) and Alabama state COVID-19 relief funding to support small business operations during the pandemic

TECHNICAL SKILLS

Languages: Python, Java, C
Frameworks: React, Tailwind CSS
Developer Tools: Git, VS Code, JetBrains IDEs
Platforms/Technologies: AWS (Amplify, S3), Figma, Gemini API, Expo, LaTeX