KEVIN KA LOK LIU

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GitHub: https://github.com/Kevvy404
Online Portfolio: https://kevvyliu.me/

PROFILE

- A Computing graduate specialising in machine learning and software development, with proficiency in Python, Java, and C/C++.
- Developed a golf swing classification system using sensor data and ensemble learning, achieving 96.6% accuracy in swing phase detection.
- Integrated a 3D kinematic visualisation tool for golf swing analysis, enabling detailed motion tracking.
- Emphasis on scalable architecture, optimised algorithms, and clean, maintainable code for data-driven applications. Continuously expanding expertise in deep learning and cloud-based deployment through independent projects.

EXPERIENCE

Dragons Paradise - SEPT 2021 – MAR 2024

Kitchen Assistant

- Prepared and packed food orders efficiently, maintaining quality, speed, and accuracy
- Operated and monitored fryers, ensuring proper food safety and cooking times
- Assisted with order-taking during peak hours, ensuring accurate communication between front-of-house and kitchen staff

ASDA Ltd- JUL 2021 – SEPT 2021

Warehouse Operator

- Operated a LLOP (Low-Level Order Picker) to collect and transport goods across warehouse facilities safely
- Maintained a clean and organised work area to comply with health and safety standards
- Collaborated with team members to meet tight shipping deadlines during peak periods

EDUCATION

University of Exeter - 2021-2024

BSc Computing - Class 2 Division 1 with Honours

Core Modules: Learning from Data, Software Development, Web Development, Network and Computer Security, Group Software Engineering Project, Enterprise Computing, Database Theory and Design

Chepstow Comprehensive School - 2014-2021

A Levels: Physics (A), Computer Science (A), Mathematics (B), Welsh Baccalaureate (A)

CERTIFICATIONS

University of Pennsylvania | July 2025

FinTech: Foundations, Payments, and Regulations

https://www.coursera.org/account/accomplishments/verify/F87IWJ9RFC4C

Google Cloud | July 2025

Introduction to Docker -

https://www.coursera.org/account/accomplishments/verify/W78B0DNSXJZL

PROJECTS

StreathamGo Group Project – https://github.com/jamespilcher/campus-sustainability-game

- Developed a **gamified web app** to boost student participation in eco-friendly initiatives at the University of Exeter
- Built a **trivia minigame** with 50+ sustainability-focused questions to educate users
- Collaborated with 5 teammates using **Agile methodologies** (2-week sprints, daily standups)

Golf Swing Classification using a Machine Learning Model – **https://github.com/Kevvy404/Golf-Swing-Classification-Using-LSTM**

- Developed a **time-series classifier** using **TensorFlow/Keras** to categorise golf swing phases with **96.6% accuracy**
- Processed **raw 3D sensor data** (accelerometer/gyroscope) into actionable features through signal normalisation and sequential windowing
- Designed an **LSTM architecture** with:
  - Two LSTM layers (100 units) + Dropout (20%) to prevent overfitting
  - Softmax output for multi-class phase detection
- Implemented **5-fold cross-validation**, achieving consistent metrics:
  - Precision: 0.94 | Recall: 0.93 | F1: 0.93 (macro-average)
- Built an interactive **3D visualisation dashboard** (Python/Matplotlib) to display swing kinematics

Movie Analysis Tool - **https://github.com/Kevvy404/Movie-Analysis-Tool**

- Engineered a **data pipeline** to extract and transform TMDB API responses into structured DataFrames
- Performed statistical analysis, including:
  - Genre frequency distributions across popular films
  - Revenue-rating correlations (Pearson's r) with outlier filtering
  - Comparative metrics (top-grossing films vs. highest-rated)
- Automated visualisation generation for stakeholder presentations

URL Shortener – **https://github.com/Kevvy404/URL-Shortener**

- Developed a **Flask web application** with SQLAlchemy ORM to create and manage shortened URLs
- Implemented a **6-character code generator** (letters + digits) with collision avoidance through database uniqueness constraints
- Designed a **RESTful routing system** with:
  - POST endpoint for URL shortening
  - GET endpoint for redirection (404 handling)
- Configured **Flask-Migrate** for database schema version control

Portfolio Website – **https://kevvyliu.me/**

- Designed and developed a **responsive portfolio** with interactive elements (dark mode toggle, typed animations)
- Implemented **3D card-flip effects** for project showcases using CSS transforms
- Built a **contact form** with Formspree integration for message handling
- Deployed via GitHub Pages with custom domain configuration

SKILLS AND HOBBIES

Technical Skills:

- Back End: **Python, Java, C, C++, C#, PHP**
- Front End: **HTML, CSS, JavaScript (JS)**
- Database: **SQL**, **PostgreSQL, MySQL**
- **RESTful API, Flask, React**
- Scrum, Agile, SDLC, Waterfall
- Automated Testing
- Git workflow

Soft Skills:

- Teamwork and Collaboration
- Communication
- Attention to detail
- System Thinking
- Adaptability
- Time Management
- Speaking Mandarin