Yifan (Vanessa) Wei

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SKILLS

Languages/Frameworks: Python, Java, JavaScript, HTML5, Dart, SQL, C# | SpringBoot, React.js, Vue.js, Flutter, .Net.
Tools/Platforms: postgres, MySQL, MongoDB, Firebase, SQL Server, FastAPI, Strawberry, Hibernate | AWS (S3, RDS, API Gateway, Textract, Comprehend), Google Cloud (Instances) | Github, Gitlab | Visual Studio Code, Google Colab | Docker, Slurm, Nvidia-smi, PyTest, JTest, BrowserBase, Playwright, Gradle, Prometheus, Grafana, Figma.
Techniques: API (REST, GraphQL), User Authorizations / Authentications (JWT, Session), ORM, Schema Design, Modeling, Fine-tuning, Prompt Engineering.
Data pipeline & analysis: LLMs (GPT, BART, BERT, Transformers, T5, etc.), Neural Networks, Traditional Machine Learning Models | Tensorflow, PyTorch, Hugging Face, Scikit-learn.

EDUCATION

Carnegie Mellon University | Master of Intelligent Information Systems **08/2025 – 12/ 2026**
Emory University | Bachelor of Computer Science (GPA: 3.98/4.00; Dean's List; Magna Cum Laude) **08/2021 – 05/ 2025**

WORK EXPERIENCE

The Disability Champions | Software Development Engineering Intern | Fort Lauderdale, FL **05/2025 – 08/2025**

- Developed a case management system for agents to manage clients and claims, featured with to do list, budget and so on.
- Focused on database management, schema design, API design, user authentication, data automation via web scraping, etc.. Utilized **Python**, **FastAPI**, **Strawberry**, **SQL Alchemy**, **AWS (RDS, S3, API Gateway), PostgreSQL**, **Playwright**, etc..
- Enhanced work efficiency of firm employees by automating management processes, achieving an average latency less than 100ms. Refined existing data automation tool's time for updating data per client from 10 min to less than 1min. The application is intended to be released and on market.

Indolike | Full Stack Development Intern | Remote **03/2025 – 05/2025**

- Constructed an E-commerce website, including browsing, payment, authentication/authorization, and other features.
- Delivered full stack development including REST API development, data management, and frontend implementation. Applied **Java, Javascript, HTML,** leveraged **Vue.js** and **SpringBoot**, and integrated Stripe for payment gateway.
- Simplified and streamlined online shopping process into minutes.

Convoloo | Software Engineer Intern | Remote **05/2024 – 08/2024**

- Established an exam preparation web platform, featuring dashboards, practice exams, and AI-powered preparation plans.
- Headed to full-stack development, operated **C#** and **.Net**, utilized **SQL server** image on **Docker** and Vertex AI.
- Maximized usability of the web application and revised average session duration from minutes to over an hour.

Emory University | Student Software Engineer (CS Department) | Atlanta, GA **08/2022 – 05/2024**

- Designed and constructed a Workload and Resource Monitoring tool to provide real-time metrics during assignment processing, leveraging **Slurm**, **Nvidia-smi**, **Prometheus** and **Grafana**, currently used by 30+ Emory researchers.
- Built the wrapping software of a chatbot, aiming to restructure professor-student interactions. Led development of multiple frontend pages deploying **Flutter** and **Dart.** Optimized page refresh rate from about 3 seconds to real-time speed. Launched on App Store and GooglePlay Store platforms, tested by 100+ users.

RESEARCH EXPERIENCE

Carnegie Mellon University | Research Assistant | Supervisor: Prof. Carlos Busso **09/2025 – Present**

- Aimed on predicting emotional hotspots in long conversations with proposed framework **R-CRNN.**

Stanford University | Research Assistant | Supervisor: Prof. Byung Yoon **12/2024 – 03/2025**

- Synthesized X-Ray bone images by fine-tuning Stable Diffusion pipeline with **Google Cloud GPU** and **HuggingFace.**

Stanford University | Research Assistant | Supervisor: Dr. Renske Lok, Professor Jamie Zeitzer **09/2024 – Present**

- Predicted sleep-wake fragmentation using collected data, applied supervised machine learning models **Random Forest** and **XgBoost,** tested with **MLP, and GPT-4,** achieving an average f1 score of 0.85.
- Worked towards a publication, and is responsible for machine learning and relevant result sections.

PROJECTS

Trip Planner | *Frontend: Javascript, React.js, HTML; Backend: Java, SpringBoot, Spring (JPA/Hibernate, Security, Web, Test,), Gradle, Jtest, GraphQL, PostGre SQL, Google Map API; Model: Python, T5, BART, LLAMA, HuggingFace* **07/2025 – Present**

- Developed a web application for trip planning, containing dashboard, trip management, user authentication, etc.

COMPETITIONS

Georgia Tech | EGHI/GT Hackathon for Mental Health Technologies – **2nd Place** **02/2023 – 03/2023**

- Proposed and delivered an e-health platform for practitioners to manage and collect patients' real-time and other data.