JACK KONG

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**EDUCATION**

**Carnegie Mellon University**, GPA 3.7 / 4.0 Completion: Dec 2023

*Master of Information Systems Management* Pittsburgh, PA

* **Relevant Coursework:** Web Application Development,Data Focused Python, Database Management, Object-Oriented Programming Java, Distributed Systems, Machine Learning, Unstructured Data Analysis

**Boston University**, GPA 3.65 / 4.0 Completion: May 2022

*Bachelor of Arts in Computer Science and Mathematics (Double Major)* Boston, MA

* **Relevant Coursework:** Software Engineering, Database Systems, Full Stack Development, Foundations of Data Science

**SKILLS**

**Languages:** Python, Java, JavaScript, TypeScript, HTML, CSS

**Database Engineering:** MySQL, MongoDB, DynamoDB, RDS, SQLAlchemy, PySpark, AWS Glue

**Frameworks:** Flask, Django, React.js, Angular, Redux, Bootstrap

**Tools:** Git, Docker, Kafka, RabbitMQ, AWS (EC2, S3, ECS, ECR), Azure, JIRA, Postman, VS Code, PyCharm

**WORK EXPERIENCE**

**BeaconFire** Feb 2024 - Present

*Full Stack Engineer* East Windsor, NJ

* Built **Flask**-based microservices to supply **RESTful** **APIs** for a news page and admin dashboard within an e-commerce platform
* Enabled dynamic news displaying by leveraging **AWS S3** and **RDS**; optimized data management using **SQLAlchemy**
* Enabled efficient user-to-marketing team communication and a subscription process using **RabbitMQ** and **Flask-Mail**
* Developed an admin dashboard with data viz to centralize operational data analytics using **React** and **React** **Charts**
* Integrated a **GPT-3.5-turbo** chatbot using **LangChain** to split the documents into chunks and generate embeddings trhough **GPT embedding model**, storing them in **Pinecone** as vector store for scalable similarity searches within a **RAG** pipeline
* Deployed **5+** microservices on **AWS** **ECS** by using **Docker** and **ECR** for containerization and images management.

**VisionX** May 2023 - Aug 2023

*Full Stack Engineer* San Jose, CA

* Developed a **Django**-based data mining system to refine user profiling to support ‘Smart Planting’, a personalized plant recommendation system; resulted in an **15%** boost in user engagement
* Orchestrated deployment of the project on **AWS EC2**, utilizing **S3** for image storage and **RDS** for database management
* Prompt-engineered an **ChatGPT**-powered virtual agent for the forum page to provide real-time, context-aware responses to user inquiries, resulting in an improved customer satisfaction rate by **19%**
* Constructed an interactive Django-based **HTML/CSS** platform and developed a robust order system

**PROJECTS**

**Email Campaign Automation Tool (China Daily)**  Oct 2023 - Dec 2023

* Developed a **Flask**-based web application that automates the creation, scheduling, and sending of **Mailchimp** email campaigns by integrating user-uploaded content and Mailchimp's API for seamless campaign management
* Designed a **React**-based interface for uploading, selecting, and configuring news items and images for email campaigns
* Containerized the Flask application using **Docker**, stored the image in Amazon **ECR**, and deployed it on Amazon **ECS**

**Movie Piracy (CMU Capstone Project)**  Oct 2023 - Dec 2023

* Developed a Streaming Piracy Data Estimation Tool for IDEA Lab's study on pirated American movies
* Built **Selenium** crawler to auto-collect piracy websites from SimilarWeb and gather movies’ volume from Piracy websites
* Stored initial data in **AWS** **S3** in CSV format for early-stage data management and preliminary analysis
* Developed an **ETL** using **Python**, **AWS Lambda**, **AWS** **Glue** to schedule periodical data renewal; automated data transformation, quality checks and loading cleaned data into **RDS** for improved efficiency

**Business Catering Dashboard** Mar 2023 - May 2023

* Leveraged **Flask-based microservices** to develop an employer dashboard for monitoring employee food preferences and engagement, and an employee dashboard for selecting favorite foods and dietary preferences.
* Employed **MySQL** database on **Amazon** **RDS**, utilizing **SQLAlchemy** for **ORM** database interaction
* Utilized **Kafka** for real-time food delivery updates, with producers publishing delivery status and consumers notifying users
* Used **React** with **Redux** to build a dynamic dashboard, enabling seamless updates of user preferences and order summaries