# Yulin Xia

⌂ www.xiayulin.online | ✉ y9xia@uwaterloo.ca | ⌗ github.com/xiayulin123 | in linkedin.com/in/yulinXia

## Education

**University of Waterloo**                                                                                                         *Waterloo, ON*
**Bachelor in Computer Engineering**                                                                                        *2022 - Current*

## Skills

| | |
|---|---|
| **Programming** | C/C++(2 yrs), **Python(4 yrs)**, HTML/CSS, JavaScript, Typescript, Node.js, Bash, Java |
| **Microservices** | **K8s**, **Linux**, **AWS**, **Docker**, **CI/CD**, **PyTorch**, **OpenCV**, **Pandas**, MongoDB, Oracle, React, DBeaver, OracleVM, ArgoCD, PostgreSQL, Jupyter, Ansible, Jenkins, MySQL, Git, Spring, Flutter, Socket, NumPy. |
| **Soft Skills** | **Interpersonal Communication**, Adaptability, Time Management, Team Collaboration, Problem Solving. |

## Work Experience

**Software Engineer**                                                                                                            *Toronto, Canada*
**Caerulean AI**                                                                                                                  *May 2023 - Aug 2023*

- **REACT** and **TypeScript** were used to develop **7 frontend pages**. **REST API** was Designed and implemented, **Prisma** leveraged for efficient database modifications. **Docker** Utilized to set up the local database environment.
- **MLOps platform** implemented with backend expertise, **Lambda functions** created and contributing to the establishment of a **CI/CD Pipeline** using **EKS** and **ArgoCD**, **enhancing efficiency by 20%**.
- **Kubeflow platform** facilitated skillful coordination of code management, strategically optimizing pipeline executions to ensure seamless and **efficient AI model training**, leading to **significant cost savings of up to 80%**.
- **Python**, **NumPy**, **Pandas** and more to develop **2 predictive models** for testing within Kubeflow, contributing to the realization of **DevOps** objectives.

**WEA Microsoft Azure Artificial Intelligence Program**                                                       *Waterloo, Canada*
**Univrsity of Waterloo**                                                                                                        *May 2023 - Aug 2023*

- **Certifications in Azure Fundamentals and Azure AI Fundamentals** Attained, showcasing proficiency in deploying, configuring, and managing Azure resources and AI services.
- **AI-powered solutions leveraging Azure services** were delivered through effective collaboration across diverse teams, applying Design Thinking methodologies to creatively address complex challenges.
- **AI-powered healthcare Chatbot** successfully created by utilizing a comprehensive suite of Azure tools, highlighting our prowess in harnessing Azure's capabilities for impactful applications.

## Projects

### CI/CD PIPELINE

- **End-to-End CI/CD** pipeline created on **AWS**, **Jenkins** automated software delivery by integrating with **GitHub Actions** for code updates and employing **Maven** for artifact creation, followed by seamless deployment to an **Ansible server**.
- **Docker image** automated creation through **Ansible playbooks** within an AWS Ansible server, **DockerHub** was utilized to facilitate efficient containerization, and these images were further uploaded for automated deployment and management
- **EKS** integration streamlined Docker image retrieval from DockerHub for efficient container deployment and scaling in a **Kubernetes** environment. **Consistent deployments** are ensured by this comprehensive pipeline, elevating development efficiency.

### FACIAL RECOGNITION

- **Real-time image capture** dynamic image display, and facial verification are encompassed by the project, enabling **real-time facial detection scenarios.**
- **TensorFlow** is utilized for model training, **Data Preprocessing**, and **OpenCV** for image processing.
- **Siamese network architecture** is utilized to compute the distance between input and validation images for facial verification, enabling the determination of facial similarity.
- **Guaranteed secure access and data privacy** by website's robust **authentication functionality**. The platform's advanced security measures ensure user confidence and protection.

### FULL STACK VIRTUALNOTES

- **Oracle Cloud infrastructure** running with **CentOS operating system** hosting a cutting-edge notes platform featuring meticulously crafted **Full-Stack** components developed using **React** and **Typescript** for optimal user experience.
- **MongoDB** integration enables efficient note storage, enhancing platform performance. **Secure authentication and data privacy** guaranteed with advanced measures.
- **Authentication functionality** ensures secure access and data privacy for users on the website. The platform's advanced security measures further enhance user confidence and protection.