Isaac Huang

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TECHNICAL AND SOFT SKILLS

Programming Languages: Python, Java, C++, C, JavaScript, Typescript, Swift, HTML, CSS
Python Libraries: Tensorflow, Numpy, Matplotlib, OpenCV, Pandas
Frameworks: Spring Boot, React JS, React Native, Aurelia, Pytest, LangChain
Java Development Tools: Lombok, Chaquopy ADB, Gradle, Maven
Development Tools: Git, Github, Bitbucket, Kubernetes/Kubectl, Linux CLI, IntelliJ, VS Code, AWS
Soft Skills: Communication, Teamwork, Time Management, Problem Solving

PROFESSIONAL EXPERIENCE

AI Developer/Researcher
09/2024 - Present
Solace
Ottawa, Canada

Contributing as part of the AI Integration team to build an in-house AI system aimed at optimizing developer efficiency, accelerating customer support, and enhancing managerial insights

- Implemented a test suite using ROUGE metrics and Anthropic's Claude model to evaluate LLM generation quality, reducing bug reports and urgent fixes by 15%
- Created a specialized LLM agent with Python to parse Datadog logs, isolating error messages and generating concise diagnostics, reducing debug times by 20%
- Developed an end-to-end ChatGPT-style gateway for an in-house agentic AI system, streamlining user access to critical information and enhancing usability

Full-Stack Developer
01/2024 - 04/2024
Solace
Ottawa, Canada

Member of the mission control full-stack team responsible for building new backend features

- Optimized cloud storage size by analyzing historical usage, reducing storage costs by 35%
- Designed an excess storage calculator that facilitated individualized billing for customers, enhancing transparency and reducing client billing queries
- Employed Java in conjunction with Spring Boot to develop backend features
- Deployed Kubernetes microservices on various cloud providers, such as GCP, AWS, and Azure, leveraging its capability for efficient scaling and management
- Enabled users to forward/send system logs through the more secure TLS protocol
- Used Whitesource and Prisma Cloud to find and quickly fix security vulnerabilities
- Ranked as an **outstanding** intern (the highest possible rating level)

Web Developer/QA
05/2023 - 08/2023
Deep Trekker
Waterloo, Canada

Member of the web development team responsible for building the UI and API for remote controlling robots.

- Developed a ReactJS-based UI for controlling underwater ROV sensors, movement, and mechanics, enabling real-time feedback and control
- Performed rigorous quality control assessments, achieving a 98% product standard compliance rate
- Ranked as an **outstanding** intern (the highest possible rating level)

EDUCATION

University of Waterloo   09/2022 - 05/2026
Candidate for BASc. - Computer Engineering   *Waterloo, Canada*
Relevant Courses:

- Algorithms and Data Structures
- Multi-threaded Programming

Coursera   03/2020 - 02/2024
Received a certificate in all courses listed   *Online*

- Object Oriented Programming in Java Specialization
- Tensorflow Developer Professional Certificate (4 course specialization)
- AI for Everyone
- Generative AI with Large Language Models

PERSONAL PROJECTS

LNReader | *React Native, Java, Python, Chaquopy, Typescript, Gradle, Git*   05/2023 - 07/2024

Collaborated with international developers to bring a novel reading app to Android with the Github repository accumulating over 1400+ stars and 30 thousand monthly downloads.

- Utilized Java, React Native and Typescript to create responsive UI and compartmentalize code
- Integrated the Chaquopy SDK to offload complicated data processing to a Python interpreter
- Implemented a feature to parse and display EPUB files to expand novel sources

AzurAuto | *Python, Tensorflow, Keras, OpenCV*   05/2022 - 01/2023

Developed an intelligent program to play a sidescrolling shooter game, effectively reducing the time spent playing the game manually by nearly 60%.

- Used Tensorflow in Python to identify and track in-game assets
- Annotated a custom dataset of in-game assets to train and evaluate the object detection model
- Experimented with different CNN architectures (e.g. MobileNet, Resnet) and hyperparameter tuning to optimize the model's accuracy and performance

PUBLICATIONS AND PRESENTATIONS

Zhiqiang Jiang, **Isaac Huang**, Xin Wang. 2024. *IndoorRoaming: An LLM-based System for Indoor Tour Guidance.* The 4th ACM SIGKDD Workshop on Deep Learning for Spatiotemporal Data, Applications, and Systems (DeepSpatial 2024), Barcelona, Spain, Aug 26, 2024.

EXTRACURRICULAR ACTIVITIES

Waterloo Engineering Endowment Funding Council   09/2022 - Present
Computer Engineering Department Student Representative   *Waterloo, Canada*

- Advocated for and secured funding for undergraduate laboratory equipment and academic tools, enhancing learning resources for over 10,000+ students annually
- Gathered and synthesized feedback from the student body to advise the council on key funding priorities, resulting in a record amount of funding for engineering design teams

INTERESTS & ACTIVITIES

Interests: Gunpla model building, 3D modelling, PC building, Piano
Sports: Swimming, Badminton, Ping Pong