

Jerrold Huang

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Skills

- Java | JavaScript | C++ | C | SQL | HTML | JSON | CSS | Angular JS | Visual Basic | Python | YAML | XML | Bash | Git | R | OOP
- Google Cloud | Azure | AWS | Kubernetes | Terraform | Jenkins | Docker | LangChain | ELK | Hyper-V | Linux | RESTful APIs | Pub/Sub APIs
- Frontend | Backend | Software | Microservices | Cloud Computing | CI/CD | Agile | Unit Testing | Internet Computing | On-Premises

Professional Experience

- | | | | |
|---|-----------------------------------|------------------|--------------------------|
| Full-Stack Developer, Intern | <u>RBC Capital Markets</u> | Toronto, ON, CA | 05/2023 - Present |
| <ul style="list-style-type: none">• Enhanced RBC's principal booking platform through agile development, introducing advanced features, fixing bugs, and streamlining procedures, thereby reducing users' operational time by up to 40% for specific tasks. Used Java, SQL, AngularJS, and JavaScript.• Designed and implemented scalable enterprise-grade microservices to support a major modernization of RBC's platform. Employed the latest technologies including Spring Boot, and RESTful APIs, integrated with Kubernetes.• Optimized data retrieval processes by transitioning from complex in-memory stream processing to efficient SQL queries, reducing latency by up to 65%.• Established a reliable automatic testing framework using Jenkins, Ant, and JUnit, strengthening the reliability of RBC's key platform. This measure has helped identify 10+ critical issues so far. | | | |
| Cloud Solution Engineer, Intern | <u>OMERS</u> | Toronto, ON, CA | 01/2023 - 04/2023 |
| <ul style="list-style-type: none">• Identified and rectified cloud storage inefficiencies in the DEV environment by utilizing Python and Google Cloud native features, preventing escalating costs, and resulting in savings over 21% (~\$9,000) monthly. Further enhanced backup policies, optimized resource utilization, and prevented future inefficiencies.• Designed and implemented a standardized labeling system for GCP resources; developed an automated labeling process with Python. This initiative provided critical assistance in tracking usage and costs associated with different teams, departments, or projects.• Proposed a multi-cloud log aggregation solution combining ELK stack with cloud native solutions to centralize, process, and analyze logs from Google Cloud, Azure, and on-premises resources for efficient monitoring and troubleshooting. | | | |
| Software Engineer, Co-Founder | <u>Ice Cloud LLC</u> | Sheridan, WY, US | 03/2020 - 04/2022 |
| <ul style="list-style-type: none">• Designed and implemented encrypted VPN, and FTP using C. Disguised VPN traffic as HTTPS using WebSocket, TLS, and Nginx to enhance security.• Improved user experience with load balancing, network optimization, and CDN strategies, which boosted download speed by 35% and reduced overall delay from an average of 260ms to 110ms.• Streamlined global server deployment and management by utilizing Terraform and Kubernetes, enhancing infrastructure scalability, security, and efficiency in multi-cloud ecosystems (across AWS, GCP, Azure and Vultr platforms). | | | |
| Full-Stack Engineer, Founder | <u>IceYun Studio</u> | Chengdu, CN | 02/2017 - 07/2019 |
| <ul style="list-style-type: none">• Spearheaded IceYun (iceyun.net), developed Minecraft servers, plugins, and modules in Java, and launched a successful business line in VPS and web hosting through on-prem server virtualization with Hyper-V, which tripled our profit.• Fortified server infrastructure by implementing stringent security protocols, DDoS mitigation and CDN applications, elevating cybersecurity defenses significantly.• Oversaw the operation of large-scale Minecraft servers, managing a community of 40,000 registered players, with a consistent active base of 3,500, while maintaining high server performance and user engagement. | | | |

Education

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|---|--|-------------------|---------------------------|
| Bachelor of Science | <u>University of British Columbia</u> | Vancouver, BC, CA | Expected Graduation: 2026 |
| <ul style="list-style-type: none">• Major in Computer Science• Second Major in Economics | | | |

Projects

- **Easily.Work**: Developed an AI-driven job assistant platform, utilizing **Python, Django, and LangChain**. Eased users' job-seeking processes by offering assistance in resume, cover letter enhancement, and interview preparation through AI functionalities. **(08/2023)**
- **Encryptor**: Developed a Java application using I/O streams for encryption and decryption of all file types. Implemented an intuitive GUI via NetBeans and utilized JSON for efficient history and data retrieval. **(04/2022)**

Awards

- Contestant in the Canadian Mathematical Olympiad (2021)
- Canadian Open Mathematics Challenge (2021) - **National Gold Award**
- Centre for Education in Mathematics and Computing, Euclid Contest (2021) - **Global Top 1%**
- Scholar Dean's Honor List (2021)
- International Student Scholarship (2022)
- J Fred Muir Memorial Scholarship (2022)