Jonathan Hu

jjunhu.github.io/ ⬈
github.com/jjunhu/ ⬈

jonathanjun.hu@gmail.com
1 (607) 339-1279
linkedin.com/in/jjun-hu/ ⬈

EDUCATION

Cornell University   **GPA: 4.0**
*Master of Computer Science; Specialization in Machine Learning*   *Aug 2023 - Dec 2024*

University of British Columbia   **GPA: 4.0**
Bachelor of Commerce, Combined Major in Computer Science and Business   *Sep 2020 - May 2023*
- **Academic Ranking**: 1st among all program peers, 5th in faculty (**Top 0.5% of 908 students**).
- **Distinction**: Accelerated a rigorous four-year program, completing all requirements in three years—a program's first.
- **Relevant Coursework**: Large-Scale Machine Learning Systems, NLP, Computer Vision and Robotics, Deep Learning, Computer Architecture, Theory of Computing, Distributed Computing, Databases, Networking, Financial Engineering.

WORK EXPERIENCE

Cornell University ⬈   Ithaca, New York
Machine Learning Researcher   *Sep 2023 - Present*
- Leading the continuous optimization of a restaurant **recommendation system**, incorporating advanced GPT and BERT models. Developed **Flask** endpoints for robust system integration and managed over 2 million+ **MongoDB** records.
- Optimized recommendation algorithm and architecture, yielding a 25% increase in recommendation relevancy and a 60% faster response time, alongside a 35% reduction in computational resource usage.

Amazon Web Services ⬈   Vancouver, Canada
Software Development Engineer Intern   *Apr 2023 - Aug 2023*
- Implemented a scalable interface that automates the creation of **customized workflow metrics** to AWS CloudWatch. Successfully released this feature to **20+ internal teams**, leading to a **10x surge** in metrics available.
- Engineered and deployed a typescript package that **automates wiki page creation** through CDK. Architected the strategic redesign of wiki page components, significantly enhancing the ease of navigation.
- **Exceeded internship expectations** by addressing key pain points in on-call tasks. Extended project scope to include wiki redesign, effectively reducing the average ticket resolution time **from 10 days to 40 minutes**.

University of British Columbia ⬈   Vancouver, Canada
Lead Teaching Assistant   *Dec 2020 - May 2023*
- Collaborated with faculty to deliver courses for **over 2,800** students in Software Engineering and Computer Systems.
- **Spearheaded training** initiatives for 80 teaching assistants, elevating the department's instructional quality.

Shenzhen Youpin Cosmetics Tools Co., Ltd. ⬈   Shenzhen, China
Software Development Engineer (Contract Part-Time)   *Jan 2022 - Jul 2022*
- Secured and executed a **$12,000** contract to develop and deploy an inventory management app using Java and MySQL.
- Centralized inventory management across departments, saving **1000 labor hours** yearly and decreasing errors by 10%.

RESEARCH EXPERIENCE & PROJECTS

- **CVR-VISTA Summer Research** ⬈ : Analyzed neural responses in driving scenarios. Applied **scikit-learn** for feature extraction, **PyTorch** for custom model building, and utilized **SGD optimization and back-propagation** with regularization to enhance driver assistance algorithms, contributing to a 15% reduction in response time errors.
- **Job Central** ⬈ : Engineered a full-stack job query app using **Spark, PostgreSQL, and React**. Built **RESTful APIs** to execute CRUD operations via Oracle JDBC. Implemented search filters to improve the job-matching process for users.
- **Pomodoro Study** ⬈ : Created a **Java** desktop app to boost productivity, featuring an intuitive GUI using Swing. Integrated an AudioInputStream for customizable music and implemented data persistency to maintain checklist items across sessions.

LEADERSHIP EXPERIENCE

Cars and Hoops Foundation ⬈   Vancouver, Canada
Vice President of Operations   *Nov 2021 - Present*
- Amplified fundraising campaigns that raised **over $200,000** for Canuck Place Children's Hospice.

Varsity Basketball ⬈   Richmond, Canada
BC Regional MVP 2020, Richmond City League All-Star 2020   *Sep 2015 - May 2021*
- Excelled as **team captain** and led the team to its inaugural provincial championship in 18 years.

SKILLS SUMMARY

- **Languages**:   Python, C, Golang, C++, Java, R, SQL, Typescript, Javascript, HTML, Scala
- **Technologies**:   TensorFlow, PyTorch, Keras, NumPy, Matplotlib, Flask, OpenCV, Pandas, Spark, Docker, AWS, Git