

Jesse Bing Han

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TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, TypeScript, Scripting

Databases: Cassandra, Redis, MongoDB, PostgreSQL, MySQL

ML/AI Tools: ChatGPT API, TensorFlow, Jupyter Notebooks

Tools & Frameworks: NGINX, AWS, Docker, Apache Spark, React, Django, Git, Node

EXPERIENCE

Lead Cloud Developer

October 2023 – Present

University of Toronto Machine Intelligence Student Team (UTMIST)

- Lead a dedicated team of 5 developers to contribute to open-source project Open Telemetry
- Provide mentorship, scope projects and delegate tasks, drive sprint planning

Teaching Assistant

September 2023 – Present

University of Toronto

- Responsible for holding tutorials and office hours to over 40 students for Theory of Computation
- Create problem sets and solution manuals relating to course topics
- Weekly meetings with professor to discuss lab materials and teaching methods
- Provide timely responses to student inquiries on Piazza, clarifying complex concepts

EDUCATION

University of Toronto

2020 – Expected 2024

Honours Bachelor of Science | Computer Science Specialist

- **Honour Roll:** Obtained a grade of 90% or greater in the majority of Mathematical and Computational Sciences courses taken at the University of Toronto for the annual year
- **Dean's List:** Achieved a cumulative grade point average greater than 3.50 at the end of the academic session
- **June Scott Award:** Awarded annually to the University of Toronto student with the highest mark (100%) in a statistics course

PROJECTS

jessebinghan.com (Personal Portfolio) | *Frontend Development*

2023

- Achieve 10x reduction in glTF model size with Blender and DRACO compression for seamless client-side loading
- Leverage advanced animation techniques such as smooth scroll and ScrollTrigger to deliver a beautiful UI
- Enhance animation fluidity by integrating techniques like linear interpolation and SmoothDamp
- Design entire application around Singleton principle to build an evolving interface for immersive user experience

kunjiajia.com | *DSA Teaching Platform*

2022

- Used by my professor to supplement course material for Data Structure and Algorithm classes with 100+ students
- Comprehensive curriculum which deep dives into foundational and advanced topics with intuitive code solutions
- Simple static webpage hosted on AWS Amplify to leverage built-in redundancy and auto-scaling capabilities

Yell | *Full-stack Realtime Instant Messenger*

2022

- Secure user information using NextAuth.js to connect client's Google OAuth session with a MongoDB database
- Implement simple search component using GraphQL queries for high-performance data retrieval
- Create high-level database abstraction with Prisma to facilitate an ORM between Node.js and TypeScript
- Style React Components with Chakra UI for custom theming and React Hot Toast for lightweight notifications

Three Musketeers Game | *Game Development | Collaborative School Project*

2021

- Deliver interactive GUI built on JavaFX to practice implementation of software design patterns and OOP concepts including Model-View-Controller (MVC), Inversion of Control, Inheritance, Composition, and Polymorphism
- Drive standups and adhere to Agile methodology as the Scrum master to ensure project is delivered successfully