Jesse Bing Han

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TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, TypeScript, Scripting
Frameworks: Node.js, React, Django, Express.js, Next.js, Vite.js, jQuery
Databases: MongoDB, PostgreSQL, MySQL, SQLite
Web Development Libraries: Tailwind, Prisma, Three.js, Bootstrap, NextAuth/Auth0, GSAP, Anime.js
ML/AI Tools: ChatGPT API, TensorFlow, Keras, scikit-learn, pandas, NumPy, matplotlib, Jupyter Notebooks

EDUCATION

University of Toronto   Toronto, ON
Honours Bachelor of Science | Computer Science Specialist   *Sept. 2020 – Expected April 2024*

- **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 (Probability and Statistics I)

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 the Singleton principle to enable 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

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

Fractal | *Frontend Development*   2021

- Responsive web design based on pure HTML, CSS, and JavaScript without the use of external frameworks
- Password management with MySQL Database which uses SHA256 Hashing to securely encrypt sensitive data

LEADERSHIP & EXTRACURRICULARS

School Clubs

- Developer Student Club (Powered by *Google*) (DSC)
- Mathematical and Computational Sciences Society (MCSS)

Events

- Organized and led a complimentary coding bootcamp, providing young programmers with essential coding skills
- Mentor high-school students in Data Structures and Algorithms using self-developed curriculum