




SIMON (JIAHE) TIAN

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EVIDENCE OF EXCELLENCE

Simon Tian is a proactive Master's student in Systems Engineering at Cornell University with a foundation in Electrical Engineering and Data Science. **At Bombardier Aerospace**, he excelled in software development and led cross-functional collaborations; **at ByteDance**, he transformed market research into actionable business strategies. His work in developing VR simulations **at Cornell** and enhancing computer vision models **at UC San Diego** demonstrates his strong technical skills. With a passion for growth and a commitment to results, Simon is eager to apply his leadership mindset and relationship-building abilities to expand company revenue and drive success in a competitive industry.

WORK EXPERIENCES

Project Manager, ByteDance Mar 2023 – Jun 2023, *Remote*

- ♦ **Comprehensive Competitor Analysis:** Led market research and analyzed competitor annual reports into actionable insights for an AI speech synthesis project, focusing on cost control, feature selection, and user profiling.
- ♦ **Effective and Timely Reporting:** Delivered clear, concise reports with thorough attention to detail, which kept management well-informed.

Technical Writer, *Engineering.com* Oct 2021 – May 2022, *Remote*

- ♦ **Published Three Articles:** Authored journals on 3D printing and nuclear fusion, amassing over 1,100 views, demonstrating strong technical writing and effective communication skills.

Aircraft Cabin Full-Stack Developer, *Bombardier Aerospace* Jan 2022 – Apr 2022, *Montréal, QC, CA*

- ♦ **Rebuilt a Software Project:** Rebuilt a dysfunctional infotainment system using React Native, Linux, Python, JavaScript, C++, Android Studio, and SQL, ensuring all system dependencies were updated and functional, and added real-time flight status display functionality.
- ♦ **Code Optimization and Documentation:** Streamlined code execution that reduced runtime by 20% and delivered the project two weeks ahead of schedule. Authored three technical documents facilitating efficient onboarding of an academic research partner.
- ♦ **Large-Scale Collaborations:** Initiated five interdepartmental collaborations, achieving three major milestones, earning three invitations to represent Bombardier in CORIM international summits and an opportunity to meet with the company CEO, Éric Martel.

Airworthiness Compliance Engineer, *Bombardier Aerospace* Sep 2021 – Dec 2021, *Montréal, QC, CA*

- ♦ **Processed 5,000+ Regulations:** Contributed to the next-generation business jet design by resolving over 5,000 EASA airworthiness regulations via Microsoft Excel, leading to a 15% reduction in design compliance errors.
- ♦ **Expedited Document Lookup:** Reviewed and consolidated 200+ scanned documents into a searchable Word document using a combination of manual and automated OCR tools, increasing search efficiency fivefold.

EDUCATION

Cornell University **Master of Science**, *Systems Engineering, Minor in Data Science* Sep 2023 – Dec 2024

- ♦ **Project Owner**, Information and Decision Science Lab, Autonomous Vehicles & VR Testbed. *Ithaca, NY, US*

Carleton University **Bachelor of Engineering**, *Electrical Engineering* Sep 2018 – Apr 2023

- ♦ **Teaching Assistant**, Differential Equations & Fourier Series. *Ottawa, ON, CA*

RESEARCH PROJECTS

VR Project Owner, *Supervised by Professor A. Malikopoulos, Cornell University* Sep 2023 – Present, *Ithaca, NY, US*

- ♦ **Full-Stack Development:** Developed a realistic driving simulation project from scratch utilizing Python, C#, Unreal Engine and Unity 3D engine. Through the integration of Meta VR and the Logitech steering wheel, this project significantly reduced the cost and risk of testing autonomous vehicle controls and human interactions by virtually recreating the driving experience.

Computer Vision Researcher, *Supervised by Professor I. Deng, UC San Diego* Feb 2023 – Feb 2024, *Remote*

- ♦ **Neural Net Implementations:** Completed multiple projects in Python with CNN and FCN-8 neural nets, including the development of advanced image classification and segmentation models, demonstrating adeptness in software research and development.
- ♦ **Effective Research Application:** Synthesized research findings into an improved residual neural network architecture. This approach improved the computer vision model's accuracy on CIFAR-10 by 7%, outperforming previous benchmarks.

Project Lead, *Supervised by Professor A. Banihashemi, Carleton University* Sep 2022 – Apr 2023, *Ottawa, ON, CA*

- ♦ **Accurate Algorithm:** Implemented a facial recognition algorithm via OpenCV and PyTorch, achieving 95% recognition accuracy.
- ♦ **Cloud Framework:** Developed a cloud-based system with IP, Python, and Android Studio, delivering sub-1.8 second response time.

STARTUP INITIATIVES

I have been dedicating my past 6 months into entrepreneurship, on top of my Master's research and class obligations. My journey began with a hackathon in October 2023, where I first experienced researching and building a solution with a short amount of time. In March 2024, I earned second place nationally at the Web3 Hackathon by Sia Partners, where my team and I innovated a mechanism to prevent counterfeiting using blockchain. In June 2024, I attended Ithaca Rev Startup Hours, in which it fully ignited my passion in entrepreneurship and guided my focus.

In September 2024, I partnered with my cofounder to create the world's first drone delivery system with a recharging mobile base station and relay delivery mechanism. Within one month, we were accepted into Cornell's Ventures Accelerated Accelerator, receiving mentorship and resources that advanced our work. This progress led to invitations to Ivy-exclusive tours and Treks in NYC, expanding our network and shaping our direction.

During the Christmas break of 2024, my cofounder and I developed the first LLM-driven drone controller, which led to an invitation to CES 2025. At CES, we identified the potential of AI-driven emotional companion products and shifted to developing the world's first flying AI pet, integrating LLM technology with to enable emotional support and interaction. I turned down a Product Manager offer in San Jose in order to work on our new direction full-time.

The team has grown to 15 members, and we are preparing for a Kickstarter launch while re-applying to Y Combinator (YC). Within two days of submitting our first YC application, we were invited to interview with Garry Tan, YC's CEO, a distinction achieved by only 3% of applicants.

Throughout this journey, I have learned three key lessons:

1. When you believe in yourself religiously, others will also believe in you.
2. Break all rules and find the most efficient way possible to achieve your goals.
3. Rejection is the norm, failure is the norm, but every 'no' brings you closer to the eventual 'yes.'