

## James Huang

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[jameshuang2004.github.io/www/](https://jameshuang2004.github.io/www/) [james.huangs.nets.hk](https://james.huangs.nets.hk)

### EDUCATION

09/2023 – 05/2027 New York University, NY Major: Computer Science GPA: 3.96

### TECHNICAL SKILLS

- Programming Languages: Java, C++/C, Python, SQL, HTML, JavaScript, Bash, Processing
- Skills: VS debugger, gdb, lldb, gcc, g++, cl, llvm, Data Structures and Algorithms, OOP, Distributed Systems, Socket Programming, Multi-threaded programming, Machine Learning, Tensorflow, CNN, Resnet, Transformers, Database, 3D modelling, Apache2, Docker, DBeaver, VS Code, Eclipse, IntelliJ, Git/GitHubDesktop, Azure, etc
- Platforms: Mac-OS, Linux, Windows

### HONORS & AWARDS

April 2023 High School Achievement Awards: Grade 12 Theory of Knowledge Award  
June 2022 [First Place Team Award](#), American Regions Mathematics League ([ARML/IRML](#))  
April 2022 Paper Accepted by [International Conference on Artificial Intelligence and Computer Science \(AICS2022\): A Novel Approach For Analysis and Understanding of Video Content](#)  
June 2021 Grade 10 Mathematics Award

### EXPERIENCE

June 2024 built [james.huangs.nets.hk](https://james.huangs.nets.hk) using Azure, ubuntu image, DNS registration, Apache2, etc  
Aug 2024 built mysql databases on both linux and mac machines using docker, latest MySQL image, SQL, DBeaver; coded up java, c++, and python clients to interact with the DBs  
2021-2024 Software Design Engineer Intern, AI core team, [Airdoc Corp.](#) (HK: 02251.HK)  
Worked on deep learning models to predict diseases (diabetes, hypertension, glaucoma, dementia, etc) based on 3.7M patients' retinal imaging data  
Fall 2023 Chief designer and implementor of two serious games:  
[SpaceExploration](#) & [Central Dogma of Life](#), using java, 3D, async programming, etc  
2021-2021 Independent Researcher on Video Content Analysis  
Developed an innovative model that takes a video & keywords to produce a trailer; used Resnet, Attention LSTM, audio API; published results at [AICS2022](#)  
2021-2021 Independent Researcher and Designer of Smart Cane  
Designed and implemented a smart cane for the blind, by detecting objects and warning with raspberry pi4B, Google CoCo model, cam, ultrasonic sensor  
2021-2022 Independent Researcher on AI Model Comparison  
Coded and compared 2 AI models (Resnet50 and ViT) using Kaggle diabetic-retinopathy-detection dataset: ViT performs better (+10% auc) with blurry data

### PERSONAL DATA

U.S. Citizen, born in Seattle, WA; Leisure time hobbies include but not limited to: Drum, Piano, Flute, Ultimate Frisbee, Swimming, American Football, Ping-pong, Basketball, Badminton, Steam Games