Alan Chen

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[GitHub](#) ◇ [LinkedIn](#) ◇ [Website](#)

EDUCATION

Brown University   *2021 - Present*
Computer Science and Applied Math Double Major

- **Relevant Coursework**: Data Structures and Algorithms, Software Engineering, Linear Algebra, Discrete Mathematics, Multivariable Calculus, Statistical Inference, Probabilistic Modeling, Differential Equations, Abstract Algebra
- **TA Positions**: Software Engineering (Fall 2022)

RELEVANT TECHNICAL SKILLS

Languages: Python, C++, Java, Javascript, R, MATLAB, Racket, Pyret, SQL, HTML/CSS
Tools/OSs: Anaconda, git, Docker, vim, CI/CD, Maven, Windows, Linux, macOS

WORK EXPERIENCE AND PROJECTS

Intel Corporation - Graphics/Computer Vision Software Intern   *May 2022 - Aug 2022*

Implemented, researched, and tested various state of the art generative models for application in improving video conferencing and streaming encoding on Intel hardware. Developed demo application using Javascript/WebRTC supported by a Flask, ONNX, and OpenVINO based backend.

waifuGAN, ghibliGAN - Standard GANs applied to New Datasets   *Aug 2021 - Aug 2022*
GitHub: [waifuGAN] [ghibliGAN]

Implemented, trained, and tuned DCGAN and CycleGAN architectures to perform generation of Japanese cartoon faces and style transfer between real life images and scenes from Studio Ghibli films, respectively. Collected and cleaned custom datasets using webscraping and OpenCV.

cs32-test - Java System Tester   *Mar 2022 - May 2022*
with Bumjin Joo, Brandon Gong, Austin Phan, and Nathan Andrews
GitHub: [Demo]

Developed a novel system testing app for Java projects. I worked on creating new test syntax, test file parsing, CI/CD of test coverage and test status, and recursive searching of the filetree for test files. We also built a frontend component in React with various accessibility features for visually impaired users and other features like a command line interface, a robust diff-ing algorithm, and simple property based testing.

NASA Goddard Space Flight Center - Research Intern   *Jul 2021 - Aug 2021*
Mentored by Dr. Yaping Zhou

Researched applying classical machine learning and AI models (random forest, MLP) to global measurements that I collocated and pruned to predict aerosol optical depth, an important meteorological measure in predicting natural disasters like dust storms.

NASA Goddard Space Flight Center - Research Intern   *Jun 2019 - Aug 2019*
Mentored by Dr. George Huffman, [Abstract]

Utilized clustering/machine learning, distribution fitting, and extreme value analysis (peaks over threshold) on high-resolution precipitation data collected by the GPM satellite. Presented work at 100th American Geophysical Union Meeting.

SELECTED DISTINCTIONS AND EXTRACURRICULARS

Competitive Programming (Brown ICPC Team)	*2021 - Present*
Brown Computer Science Departmental Undergraduate Group Officer	*2021 - Present*
Hack@Brown Development Team	*2021*
Regeneron National Science Talent Search Top 300 Semifinalist	*2021*
American Invitational Mathematics Exam Qualifier	*2018, 2019*
American Mathematics Competition Distinguished Honor Roll	*2018*