

# Dylan Tian

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## Education

### Brown University

May 2021

*B.A. in Computer Science & B.A in Education Studies*

- **Relevant Coursework:** Data Structures, Operating Systems, Computer Graphics, Interactive Computer Graphics, Deep Learning, Computer Vision, Data Science, Web Development, UI/UX

## Work Experience

### Google

Feb 2022 – Mar 2024

*Software Engineer*

*Taipei City, Taiwan*

- Ensured all Bluetooth components for the Pixel Fold project were on schedule, met performance metrics, and production-ready. Triaged and fixed high priority bugs and issues, prior to and throughout Pixel Fold's release
- Updated all Pixel Bluetooth APIs from deprecated HAL IDL to Android IDL
- Laid out design, expected timeline, and documentation with factory and Qualcomm vendors and implemented a secure encryption feature to be rolled out on all Pixel 2024 projects using QCOM Bluetooth firmware

### Facebook

June 2020 – Sept 2020

*Software Engineering Intern*

*Menlo Park, California*

- Delivered several new interactive elements to a stable dogfoodable state within the Guardian environment for Oculus VR, in C++, Java, and ReactVR

### Brown Visual Computing

Jan 2019 – May 2020

*Undergraduate Researcher*

*Providence, Rhode Island*

- Cleaned, annotated, and validated 3D datasets using graphics techniques in Python, PyTorch
- Worked with Professor Daniel Ritchie to implement a deep learning 3D mesh generation pipeline comparable to state-of-the-art algorithms

### Microsoft

May 2019 – Aug 2019

*Explore Intern*

*Redmond, California*

- Designed and delivered PoC for user productivity features on Outlook Calendar in Typescript, React, Redux, C++

### Aerohive Networks

May 2018 – Aug 2018

*Software Engineering Intern*

*Milpitas, California*

- Helped set up network lab and execute automation testbeds using Python and Robot

## Projects [github@dylleealt](https://github.com/dylleealt)

### Fluid Simulation | C++, OpenGL

Physically-based fluid simulation using a Navier-Stokes solver [Stam 1999] with vorticity confinement

### Procedural City Generation | C++, GLSL

Procedural city scene displaying buildings, fractal terrain, and L-system trees, rendered in real-time with ray marching

### Raytracer | C

Monte Carlo raytracer able handle multiple BSDFs and is optimized with BVHs, event splitting, advanced sampling, written entirely in C for fun

## Technical Skills

**Languages:** C++, C, Java, Python, Typescript, C#, Matlab, R

**Platforms and Libraries:** Android SDK, Unix/Linux, OpenGL, TensorFlow, PyTorch, React.js, Redux, Node.js

**Other:** Unity, Agile methodology

## Community Engagement

**The Brown Daily Herald** Editorial Page Board, Design Editor

**Brown CS Dept** Head TA (CSCI 1230 - Computer Graphics '20)

CS TA (CSCI 0030 - Computation for Social Sciences '18, CSCI 1230 - Computer Graphics '19)

**SIGGRAPH Student Volunteers Program**

**Brown/RISD Game Development**