# Tanya Lai

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## **EDUCATION**

#### UNIVERSITY OF MICHIGAN

B.S.E IN COMPUTER SCIENCE MINOR IN MUSIC

Aug '18 - Apr '22 Summa Cum Laude Coursework

- Operating Systems
- Web Systems
- Computer Vision
- Computer Security
- Computer Science Education
- Machine Learning for Natural Language Processing
- Computational Linguistics
- UI Development

#### Organizations

- Tech for Social Good (Vice President, Finance Chair)
- Michigan Pops Orchestra (Personnel Director, Double Bassist)
- MedLaunch Biomedical Design Team (Software Developer)

#### Honors + Awards

- Best Installation @ New Interfaces for Musical Expression (NIME) Conference
- Most Creative Data Hack @ Technica Hackathon
- Pinnacle Hack Winner @ AthenaHacks
- James B. Angell Scholar
- Dean's List, University Honors

## **SKILLS**

Programming Languages

C++ • JavaScript/TypeScript • Python • C# • SQL/KQL •

HTML/CSS • C

Frameworks

Firebase • three.js • CosmosDb • React • Bootstrap • Express • Vue • Google Apps Script • Google Cloud Functions

# **PUBLICATIONS**

NIME 2020 | Cross-platform and Cross-reality Design of Immersive Sonic Environments

### **EXPERIENCE**

#### MICROSOFT (INTUNE DATA, ML, AND AI TEAM)

C#, TypeScript, React, Knockout.js, SQL/KQL

Software Engineer | Aug '22 - Present

- Collaborating with data scientists to provide optimized, machine-learning generated insights to allow IT admins to configure Windows security baselines that best secure and protect their organization's users and devices
- Developed UI and back-end in recommendation pipeline for service-to-service, customer-facing, and cache and database interactions
- Identified performance fix that reduced the number of server connections by 700% and helped reduce one segment of pipeline runtime by 50%
- Co-leading adoption of new A/B testing framework for Intune scenarios and collecting telemetry data to analyze feature success metrics

#### Software Engineer Intern | May '21 - Aug '21

• Designed and developed a full-stack, endpoint analytics pipeline to generate insights for organizations to optimize CPU and RAM resources and boost their users' productivity and experience

#### UNIVERSITY OF MICHIGAN CREATIVE CODING LAB

JavaScript, three.js, Firebase, Google Apps Script, Google Cloud Functions, HTML/CSS Research Assistant to Professor Anil Çamcı | Nov '19 - Aug '22

• Designed, evaluated, and implemented cross-platform multiplayer collaboration mode, infinite undo-redo chain, low-frequency oscillations, and UI for the browser version of Inviso (inviso.cc): a suite of AR, VR, and web app for designing immersive, 3D, spatialized sonic environments

#### UNIVERSITY OF MICHIGAN COLLEGE OF ENGINEERING

Teaching Aide for Technologies to Optimize Human Learning | Jan '22 - Apr '22

- Created materials and taught a graduate-level course, as an undergraduate, on computing advances in educational technologies, educational learning theories, and human-centered methods to design and evaluate learning technologies
- Rated 4.7/5.0 for overall effectiveness of teaching and student support

#### **OCULATE**

Ionic, Angular, LoopBack, JavaScript, TypeScript, HTML/CSS Software Engineer Intern | Jul '19 - Aug '19

• Built and tested front-end and back-end of admin panel to increase efficiency in managing ophthalmology surgery consignments and to oversee relations between distributors, medical practices, and surgery products from suppliers

# **PROJECTS**

#### **DUALETE** | ATHLETE MENTORSHIP COMMUNITY APP

Next.js, React.js, Vercel, Express.js, MongoDB, Stripe | Aug '21 - Dec '21

• Collaborated with 4 developers and built an accessible marketplace to connect youth athletes with college athletes for mentorship sessions on recruitment and well-being

# VREHAB | VR GAME FOR STROKE REHABILITATION

C#, Unity | Aug '20 - Apr '21

• Researched, designed, and developed three realistic, customizable, picnic-themed mini-games that target different shoulder and wrist exercises for stroke rehabilitation patients to stay motivated during therapy

#### **CONVERTIFY** | Lo-fi Music Generator

Django, Python, JavaScript, Youtube API, FFmpeg CLI | Oct '20

• Created a web app to help people explore data and music by taking in text input or an article link, scraping the web for audio, and performing audio processing to output lo-fi music and audio wave visualizations