

Application Package

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New Media Exhibit Developer

Location: San Francisco, CA Department: New Media Exhibit Developers Type: Full Time Min. Experience: Mid Level

SUMMARY

New Media (NM) exhibit developers are the primary staff responsible for exhibit creation, from idea generation and concept development through design and implementation. Although exhibit ideas may come from many sources and fabrication may be accomplished in coordination with other staff, NM exhibit developers drive the process of transforming exhibit ideas into interactive, physical form using digital technologies. Exhibit development at the Exploratorium emphasizes iterative prototyping and incorporates input from outside advisors, public visitors, and project team members including project directors, other exhibit developers, graphic designers, writers, scientists, and evaluators. NM exhibit developers are also expected to collaborate on other types of experiences for visitors, including demonstrations and programs, to contribute to overall project and exhibition development, and to participate in developing proposals for new exhibits and exhibit areas. This position reports to the manager of the New Media Exhibit Developer group.

ESSENTIAL FUNCTIONS

- Execution:
 - Consistently deliver high-quality exhibit experiences across a number projects under the direction of project leadership; pursue best practices in all areas of exhibit creation.
 - Design screen-based and physical user interfaces.
 - Contribute to hardware and software platform decisions, program applications, and build circuits as appropriate for exhibits.
 - Scope work within time and budget parameters. Meet project milestone and final deadlines.
- Idea generation: reliably produce a wide variety of compelling and engaging exhibit ideas, interactions, and interface designs.
- Iteration: observe visitors and work with evaluators to iterate prototypes based on feedback.
- Documentation: document exhibits, demos, and source code according to standards set by the shop, new media group, and project leadership.
- Facilities Work/Institutional Support:
 - Contribute to general museum operations, including shop and/or lab maintenance, exhibit maintenance, material ordering and stocking, and equipment upkeep.
 - Assist other museum staff, visiting artists, and contractors in meeting new media hardware and coding standards and practices.
- Other duties as assigned.

MINIMUM QUALIFICATIONS

- BA/BS in a New Media field, Human-Computer Interaction or a combination of art/design and computer science or electrical engineering, or equivalent combination of education and experience.
- Basic experience in wood, metal, and/or plastic fabrication, or the desire and ability to learn as needed.
- Basic coding skill in Processing and Arduino or related code base; experience with some combination of Javascript, Java, and Max/MSP/Jitter preferred; experience with C++ frameworks and OpenGL a plus.
- Basic user interface, user experience, and interaction design skills; visual design skills a plus.
- Basic physical computing and circuitry skills.
- Experience applying user research or feedback in an iterative development process preferred.
- Experience exhibiting work in a public setting preferred.
- Comfortable taking direction and mentoring from senior shop staff, senior exhibit developers, graphics and editorial, and visitor research and evaluation.
- Strong interest in exhibit design and inquiry-based learning.
- Ability to collaborate as part of an effective team.
- Open-minded, able to fail and try again, observant and deeply curious.
- Ability to lift and carry up to 50 pounds short distances. Able to move from place to place; bend, stretch, grasp, reach, kneel and twist.

APPLICATION DEADLINE

This position is open until filled

HOW TO APPLY

This is a fixed-term (ends 4/30/2023), full-time (37.5 hours/week), non-exempt, union position that includes benefits. To apply, please visit the Exploratorium job page. Please, no phone calls in regards to this job.

The Exploratorium is proud to be an Equal Opportunity Employer and values diversity, inclusion and respect. We welcome and strongly encourage applicants from all backgrounds. All qualified applicants will receive consideration for employment.

[Apply Now](#)

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Works Cited

“New Media Exhibit Developer (2021).” *Exploratorium*, 3 Dec. 2021,
<https://www.exploratorium.edu/about/jobs/current-openings>

2205 Lower Mall
Vancouver, BC
V6T 1Z4

December 3, 2021

Exploratorium
Pier 15
(Embarcadero at Green Street)
San Francisco, CA 94111

Subject: New Media Exhibit Developer Position – Daniel Tsui

To whom it may concern,

I am very interested in the position listed; New Media Exhibit Developer at Exploratorium as posted on the Exploratorium website. I am a 4th year Bachelor of Computer Science student at the University of British Columbia and will be graduating in June 2022.

I believe I am a strong fit for this position based on my current work experiences. Through my research assistant, teaching assistant roles at the University of British Columbia, I have been involved in multiple interactive works and work heavily with Max/MSP/Jitter along with building custom circuit boards and developing Arduino related code. Additionally, I have aided in many students' Music Technology capstone projects that involve circuitry, 3D printing and code.

Through my experiences, I developed strong debugging tactics whether hardware or software and collaborative and communicative skills with my supervisors. I can efficiently develop new ideas into a physical product and am eager to take on new challenges. I am confident that I have the qualifications and have ability to quickly adapt to new things in the workplace.

Thank you for your time in review my application. I look forward to speaking with you should you find me fit for this position. Please reach me at daniyo97@hotmail.com.

Yours truly,

Daniel Tsui

Daniel Tsui



Daniel Tsui

researcher & coder & hardware designer & computer consultant & musician

5833 Wilson Ave. Apt. 402, Burnaby, BC V5H 4R8
T: 604-782-3308 E: daniyo97@hotmail.com

Education **University of British Columbia, School of Music, Vancouver, B.C.** **ongoing**

Master of Music, Major in Orchestral Instrument (Violin Performance)

*Bachelor of Computer Science
Student*

University of British Columbia, School of Music, Vancouver, B.C. **2015 – 2019**

BMus, Bachelor of Music, Major in Orchestral Instrument (Violin Performance)

AMT, Minor in Applied Music Technology, specializing in sensor systems including on-body and infrared tracking

Graduated

Research Interests Sensors for human interactivity, Custom electronics installations, 3D printing, circuit design, Digital Interactive Music, Electroacoustic Music, wireless audio systems for performances and services

Special Skills Advanced knowledge in Max/MSP, C, C++, and Java coding languages

Proficient in design/CAD applications such as Fusion 360, EasyEDA

Advanced knowledge in 3D printers, 3D printing and repairs

Advanced skills in integration and troubleshooting on both hardware and software of all kinds

Proficient in general use systems and applications such as Microsoft Windows, Apple macOS, Apple iOS, Android, Microsoft Office Suite, Adobe Creative Suite, Final Cut Pro

Fluent in English, Cantonese, Mandarin, and Taiwanese

Work Experience	Ecdysis , Vancouver, BC, Emmalena Fredriksson and Synapses , Vancouver, BC, Dr. Robert Pritchard	2020
	<ul style="list-style-type: none">Responsible for software development/performance of the light spine incorporating RUBS hardware for wireless control. Enabled light to be responsive from multiple sources (sound & sensor data) with the ability to map theatrical lighting values to the spine.	
	RUBS (Responsive User Body Suits) , Vancouver, BC, Dr. Robert Pritchard	2020
	<ul style="list-style-type: none">Responsible for new, upgraded custom circuit board designs with the inclusion of lighting capabilities, software development including transition to wirelessly controlled ESP32 based boards.	
	FoToGesAAV (Force, Touch, Gesturally Activated Augmented Violin) , Vancouver, BC, Daniel Tsui	2019
	<ul style="list-style-type: none">Responsible for 3D printing, circuit design, software development, and performances with the instrument.	
	Research Assistant , UBC School of Music (Music Technology)	2019 – present
	Studio Technician , UBC School of Music (Music Technology)	2020 – present
	Teaching Assistant , UBC School of Music (Music Technology)	2020 – present
Computer Technician , Tsui Studio	2007 – present	
Violin Teacher , Tsui Studio	2012 – present	

	Program Assistant , UBC School of Music (Music Technology)	2019 – 2020
	Assistant Computer Technician , VanTech	2008 – 2019
Performance Activities	Violinist of Willingdon Symphony Orchestra (2008 – present)	2008 - present
	Concertmaster of University of British Columbia Symphony Orchestra	2019 – 2020
	Violinist of University of British Columbia Symphony Orchestra	2015 - 2019
	Concertmaster of Willingdon Fine Arts Academy Orchestra	2008 – 2018
	Concertmaster of Moscrop Secondary Symphony Orchestra	2011 – 2015
	Concertmaster of Vancouver Youth Symphony Orchestra	2011 - 2015
	Senior	
Awards	Jacobus and Frances Jutte Memorial Scholarship	2018
	Norah Mansell Music Scholarship	2017
	Dr. and Mrs. A M Bomstead Scholarship in Violin and Piano	2017
	UBC School of Music Twenty-Fifth Anniversary Scholarship	2015
	UBC School of Music Entrance Scholarship	2015
	British Columbia District/Authority Scholarship Award	2015
	D C & H L Knigge Entrance Scholarship in Music	2015
	Vancouver Youth Symphony Orchestra - Lightburn van den Bos Scholarship	2015
	British Columbia Music Educators Association (BCMEA) Scholarship	2015
	Moscrop Secondary School Music Scholarship	2015

2205 Lower Mall
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December 3, 2021

Bob Pritchard, UBC Associate Professor, Music Technology
313 - 6361 Memorial Rd,
Vancouver, BC
V6T 1Z2

Subject: Reference Request – Daniel Tsui

Dear Dr. Bob:

I hope you are doing well and enjoying your sabbatical! I apologize for bothering you with this request!

I am currently applying for a new media exhibit developer position at Exploratorium in San Francisco! I am wondering if you would be willing to be one of my references? This job position heavily aligns with what we have done in the past and I hope to develop new installations for you to visit in the near future!

I've attached my resume for you to review! Please email me at daniyo97@hotmail.com if you have any questions. Thank you for your time!!

All the best,

Daniel Tsui

Daniel Tsui

Enclosure: Resume – Daniel Tsui

2205 Lower Mall
Vancouver, BC
V6T 1Z4

December 3, 2021

Keith Hamel, Director, Computer Music Studio, Composition
317 - 6361 Memorial Rd,
Vancouver, BC
V6T 1Z2

Subject: Reference Request – Daniel Tsui

Dear Dr. Hamel:

I hope you are doing well and hope the new AMT students are doing great!

I am currently applying for a new media exhibit developer position at Exploratorium in San Francisco! I am wondering if you would be willing to be one of my references? This job position involves a lot of Max/MSP/Jitter work and experience and through the time I've spent under you as a teaching assistant in Laptop Orchestra, I believe you are able to give a fair and detailed reference for me!

I've attached my resume for you to review! Please email me at daniyo97@hotmail.com if you have any questions. Thank you for your time!!

All the best,

Daniel Tsui

Daniel Tsui

Enclosure: Resume – Daniel Tsui

2205 Lower Mall
Vancouver, BC
V6T 1Z4

December 3, 2021

Emmalena Fredriksson
6361 Memorial Rd,
Vancouver, BC
V6T 1Z2

Subject: Reference Request – Daniel Tsui

Dear Emmalena:

I hope you are doing well! I hope COVID has not affected you too hard with your dancing work!

I am currently applying for a new media exhibit developer position at Exploratorium in San Francisco! I am wondering if you would be willing to be one of my references? Through the time I've spent with you on the projects for Ecdysis and Synapses, I think you are a very valuable reference for my application as I have built and developed custom circuitry and code for these projects with you!

I've attached my resume for you to review! Please email me at daniyo97@hotmail.com if you have any questions. Thank you for your time!!

All the best,

Daniel Tsui

Daniel Tsui

Enclosure: Resume – Daniel Tsui