

JALI Research Inc. is seeking a software engineer to join its software development team to contribute meaningfully to JALI's growing suite of proprietary procedurally generated facial animation tools and workflows for production and real-time use-cases, management of code-base and automated systems, API integrations for 3rd party engines such as Unreal and Unity as well as bespoke development for the proprietary pipelines of JALI's growing list of high profile customers in the video game, animation (series and film) and digital human industries.

As a member of the JALI Research Inc. team you would be working with some of the brightest minds in the CG industry. Reporting directly to the Chief Technology Officer, the successful candidate will be efficient and thorough in learning the code-base. This person will execute software releases efficiently using the established release management system, and work with their team lead to build and optimize the system as the company grows. The successful has industry experience or a demonstrated interest in the area of dev ops, and will be responsible for setting up and establishing repeatable and automated debugging, quality assurance, unit testing, release code management and version control for the existing and rapidly growing team.

### RESPONSIBILITIES

- Collaborate with development team to continually implement best-in-class frameworks for robust software development and procedures
- Learning, maintaining and optimization of C++ code base with CTO
- Writing and refactoring development code for product release using C++ or Python
- Develop, maintain, and provide support for the JALI plugins and C++ libraries
- Work with existing release management software to create client installers
- Configure a system that allows for automation of release processes
- Manage custom releases for clients
- Maintaining system release notes
- Debugging, QA and unit testing
- Maintenance and ongoing improvement of License Monitoring and Management System
- Support the Sales team with technical support as needed
- Other duties as assigned

### QUALIFICATIONS

- Strong, modern C++ and Python programming skills
- Experience managing database systems using SQL
- Bachelor degree in Computer Science or Software Engineering
- Experience developing within an existing codebase
- Experience creating automated QA testing and debugging protocols, release code and version control systems
- Ability to work independently and as part of a small team

### ASSETS

- Some relevant work experience
- Experience with real-time game engines such as Unreal or Unity
- Experience with cross-platform development
- Familiarity with AWS
- Experience with Apache Kafka

- Working knowledge of C#, Mel
- Familiarity with Maya
- Technical writing skills; writing and revising documentation (written, visual) and tutorials
- Familiarity with character rigging fundamentals

#### **TO BE SUCCESSFUL IN THIS ROLE YOU WILL**

- Have the ability to work as part of a team
- Be a self-starter with a can-do attitude
- Be cooperative, kind and patient
- Communicate effectively, especially when conveying complex technical information
- Demonstrate exceptional problem-solving skills
- Be confident interacting with end-user clients and creative staff to develop solution based tools and technologies in the fields of graphics, and specifically, character animation
- Always be looking to expand your knowledge and skill set through new learning opportunities
- Have a keen interest in video games, film, animation and performing arts

#### **WORKPLACE & CULTURE**

- We are a partially remote workforce as long as high transmission concerns and measures to mitigate them remain in effect
- Team members meet briefly each morning on Zoom for daily standups and once weekly for longer form progress and strategy calls
- We stay connected, organized and transparent using Slack and Monday.com
- As a small team, self motivation, ownership and the ability to hold oneself accountable is crucial

#### **JOB DETAILS**

Reports to: CTO  
Permanent, Full-time

JALI Inc. is committed to inclusion and diversity. We encourage all qualified applicants to apply. Accommodation will be provided to candidates with disabilities, upon request.

#### **COMPENSATION**

Salary (negotiable)  
Flexible work schedule  
Paid vacation, sick days

JALI Research is committed to offering flexible work schedule. Option to work in the office, remote or on a hybrid model.

Currently we do not offer a benefits package, however this is something we are looking into as we grow.

#### **LOCATION**

Our transit-friendly studio space is part of a shared creative workspace located in Toronto's eclectic Kensington Market, called 156 Studio Projects, located at 156 Augusta Ave. 2nd Floor, Toronto ON. Amenities include spacious workstations, unlimited meeting room access, kitchen and common areas.

## TEAM OVERVIEW

The founders of JALI are leaders in the area of speech animation whose recent contributions to the field include resurrecting the long dormant area of procedural speech (SIGGRAPH 2016) and also for new work in deep learning based real-time speech (SIGGRAPH 2018). JALI CTO Pif Edwards is continually breaking new ground with his graduate research that has provided a disruptive speech-centric workflow for character animation in the form of JALI's core software solution. The facial animation tools in the current industry standard for modeling and animation since 1998 Autodesk Maya (technical Oscar in 2003), were singularly designed and developed by JALI co-founders Karan Singh and Chris Landreth. Landreth's award winning animated films Bingo (Genie 1998), Ryan (Oscar 2005), Spine (Genie nomination 2009), are celebrated for their uniquely expressive character faces. A Fellow of the Royal Society of Canada, and member of the SIGGRAPH Academy, Eugene Fiume, likewise a pioneer in computer graphics, served as Director of Research at Alias|wavefront (now Autodesk). He is well known for helping to bring physical modeling of natural phenomena into production graphics systems.

The research and development team at JALI are supported with leadership and operations management from CEO Sarah Watling, who oversees the growth and development of the company, the stewardship of JALI's key strategic partnerships and early adopters as well as the day to day management of a growing support team of developers, animators, sales and marketing contractors. JALI also employs a qualified Project Management Officer, to ensure the successful management and delivery of all major projects.

## COMPANY OVERVIEW & MISSION

At JALI we are focused on creating artistic tools to drive the expressive performance of 3D digital characters, enabling direction and animation capable of massive scale up with a fraction of typical resources. Philosophically, product and feature development is supported by two principles. First, our technology must integrate seamlessly into industry standard animation pipelines. Second, the animator has ultimate control. Our tools employ intelligent automation, and end users may never need to touch our output animation - however, if they choose to do so they can with the same ease as if they had authored it themselves.

In the fall of 2020, we launched our first product offering in conjunction with the much anticipated AAA game release, Cyberpunk2077 with development partners CD Projekt Red. Since then we have been committed to achieving software maturity and robustness of our original lip-sync solution, while innovating far beyond expressive lip-sync to the audio-driven animation of the entire face and neck.