ERIK PALUKA, M.Sc.

Full Stack JavaScript Developer | Blockchain Advocate

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SUMMARY

I have a growth mindset and love learning new things which is why I spent over 4 years conducting computer science (HCI) research where I specialized in multi-touch and spatial interaction. Looking to level up in business and engineering

EXPERIENCE

Agile Software Engineer & Transformation Engineer

TribalScale 06/2016 - 03/2019 Toronto, Canada

Builds best-in-class web, mobile, & voice apps using agile methods

- Employed agile processes to rapidly ship high quality products including test-driven development, extreme programming (XP), & pair programming
- AAA – Transformed a large traditional USA company's engineering team from traditional waterfall development to agile development
- TribalScale – Frontend JavaScript developer on a team that built a resource allocation product using React + Flux and test-driven development (TDD)
- Radio.com – Lead developer of a two person team that built the JavaScript frontend of an audio streaming product featuring live + time-shifted content with continuously updated metadata and video + image ads. Used TDD, as well as developed a middleware server using Node.js + express.js
- CBS Sports – Lead Roku + BrightScript developer of a two person team that built a 24/7 live streaming app, also featuring top highlights & videos
- AAA – Lead JavaScript + React + NodeJS developer of a two person team that built an account system + middleware using test-driven development
- Radio.com – JavaScript Developer on a two person team that built a Google Chomecast CAF Receiver App for audio streaming content with Node.js + express.js for the middleware server

Software Developer & Computer Science Researcher

Visualization for Information Analysis Lab - vialab

05/2011 - 09/2015 Oshawa, Canada

Research lab focusing on InfoVis & human-computer interaction

- Designed, conducted, and analyzed 6 different computer science research studies with human participants using the software systems I developed
- Developed and designed a JavaScript + D3.js based system to visualize spatial interaction data to support developers and researchers
- Developed and designed a system for off-screen spatial interaction and navigation by employing multiple Leap Motion controllers and Java

EDUCATION

Master Degree in Computer Science

University of Ontario Institute of Technology 08/2015

- Research based degree with thesis: Spatial Peripheral Interaction Techniques for Viewing and Manipulating Off-Screen Digital Content

Bachelor Degree in Computer Science

University of Ontario Institute of Technology 04/2012

- Graduated with Distinction with fourth year thesis: Enhancing Tandem Language Learning Using an Interactive Tabletop

TECHNOLOGIES

JavaScript | React + Redux | Node.js | Express.js | Webpack | Concourse | Git | Sass | Jest | MongoDB | Java | TDD

OPEN SOURCE PROJECTS

Simple Multi-Touch – SMT

Multi-touch toolkit for Processing + Java

- SMT enables fast prototyping of multi-touch applications and has been used at multiple universities to support research initiatives

www.erikpaluka.com/research/smt/

TandemTable

Collaborative multi-touch tabletop system for tandem language learners written in Java

- Facilitates language learning by suggesting and grounding conversations on user-specified themes/topics with additional translation abilities
- Uses web services to provide digital media artifacts that contain up-to-date content
- Features voice activity detection (VAD) by including microphone support and implementing digital signal processing (DSP) algorithms

www.erikpaluka.com/research/tandemtable/

Multi-Leap

Java library that enables multiple Leap Motion controllers to be run on the same computer

github.com/paluka/Multi-Leap

SELECTED PUBLICATIONS

SpatialVis: Visualization of Spatial Gesture Interaction Logs

LIVVIL at IEEE VIS 2016

2016 http://bit.ly/SpatialVisHCI

TandemTable: Supporting Conversations and Language Learning Using a Multi-Touch Digital Table

Graphics Interface Conference (GI '15)

2015 http://bit.ly/TandemTable