Santipab Tipparach

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Web Application and Games Developer

122 1/2 N Broadway Dr, 58102, Fargo, ND US

Full stack software developer in React, Node JS, and ASP .Net. Experience with implementation of complex client side web applications using modern Javascript technologies and previous experience working on scalable high-performance back end server infrastructure. My favorite hobby is designing and implementing video games with Unity game engine.

SKILLS Web Development **Game Development Graphics Programming** CSS javascript unity 3d opengl directx hsls/glsl reactis space simulation physics systems jquery/json nodejs sql server vuejs php mysql character animation/interaction systems mongodb postgresql virtual reality locomotion systems multiplayer and cross platform games **General Programming** c#, wpf, .net, wcf java, android development C/C++ python nunit/junit testing **WORK EXPERIENCE (6)**

Co-Founder at Archenemy Interactive **May 2016- March 2019** https://archenemyinteractive.com/

Founded group to develop VR content for commercial games and for local organizations and busnisses. Worked as lead on the Fleet Hackers VR project, served as lead writer, programmer, and art design. Developed VR tools for motion capture, ragdoll systems, and robotic sensor controls. Prototyped many games including Ixion and Tower of the Sun for HTC Vive.

- Won many local awards for outstanding innovation and creativity in the local Fargo/Moorhead Area
- Held the championship for Fargo Game Makers 2 Years in a row.
- Continue to spread VR education among Fargo youth, and advocate for VR development.

Senior Software Engineer at Bushel Inc. April 2020- January 2021 https://bushelpowered.com/

Works on Bushel's cloud payments solution, back end API developer. Helped with dev ops tasks such as setting up Docker containers and Azure Dev Ops pipelines. Worked with event messaging in Pulsar and contributed to architectural design decisions involving microservices. Utilized Java Spring Boot and Cockroach DB.

Database administration, full stack web-development, and HMI(human-machine interaction) application development. Works on web applications that run on React, Node JS ASP.Net and Ignition to create solutions automation and manufacturing processes.

- Leaded the adoption of DevOps, Continuous Integration, Distributed Version Control Systems, and created Development and Testing environments for SCADA Systems.
- Created web based infrastructure for remote client management across 4 Marvin Plants.
- Developed web applications for managing machine settings for various parts configurations.
- Database schema design and overhaul of many major backend systems.

Teaching and Research Assistanships at NDSU January 2016- May 2018 https://www.ugpti.org/dotsc/about/

Employed as a teaching assistant for the computer science department in CS 160. Then trasitioned into a Resarch assistant for the Upper Great Plains Transportation Institute(UGPTI). Maintained databases, legacy code, and successfully lead the development multiple new product releases for the DOT(Department of Transportation) and UGPTI offices.

- Worked on realtime data capture of roadway conditions using an Android device.
- Developed a new version of the Geographic Roadway Inventory Tool with ReactJS, Semantic UI, and Node JS.

Software Developer at OATI June 2013- November 2015

https://www.oati.com/

Employed as a professional developer creating software for the one of the country's largest energy industry software company. Developed solutions to schedule transmissions of electrical energy and made strides in advancing the company in automated testing, and application-to-application communication infratructures.

- Lead developer of the Realtime Net-Scheduled Interchange application for monitoring real-time and near future transmissions across power grids.
- Lead development on integration of inter-company data transfer using SOAP XML via TSL.
- Improved testing infrastructure by creating Unit Tests in NUnit and training new QA teams for automation of Unit Tests.

Internship - Software Developer & Technical Designer at Karvakko Engineering May 2012- March 2013 https://archenemyinteractive.com/

Worked as a software developer. Created a scheduling program, and a GIS application that interfaced with Google Earth. In addition, also designed 3D models for engineering projects, or future development plans. Used 3Ds Max and Gimp to develop a photo-realistic demonstration of the Bemidji Airport existing and development sites, along with a virtual tour of the Bemidji Airport for potential investors, landscape developers, and Civil Engineers.

VOLUNTEER

Helped with Unity, VR, and Game Maker education program for middle school students grades 6-8. Taught kids to develop games using C# and Game Maker scripting.

Teacher at West Fargo Public Schools STEM Program

December 2018 - March 2019

Helped bring game development education to a larger audience of students with 2D and VR video games in Unity.

Teacher at uCodeGirl June 2018 - June 2018 https://www.ucodegirl.org/

Ran a boot camp for VR devleopment for young adults. Used Coogle Cardboard and Android phones to create a VR balloon popping game.

Webcast Operator at FIRST Robotics MidWest Regional Competition March 2019 - March 2019

https://info.firstinspires.org/destination-deep-space

Ran the Twitch stream for the FIRST robotics competition.

EDUCATION (3)

Masters Computer Science at North Dakota State University **2016 - 2019**

Bachelors Computer Science at Bemidji State University **2010 - 2013**

Associates Computer Science at Nort Virginia Community College **2009 - 2010**

AWARDS

1st Prize at Fargo Game Jam 2018 at Fargo Game Makers **2018**

The development of Tower of the Sun, an interactive social simulation game about a society that solves its problems with sacrifices.

1st Place at the Fargo Hackathon 2018 at Fargo Hackathon **2018**

For the development of Storm of Fire, and education simulation about fire safety.

2nd Place at the Fargo Hackathon 2017 at Fargo Hackathon 2017

For the driving and zombie-fighting simulation using the Wrld API and Fargo Fire Department data.

1st Prize at Fargo Game Jam 2017 at Fargo Game Makers **2017**

Development of the prototype space horror survival game Ixion.

3rd place at the Innovation Challenge NDSU 2017 at NDSU Research Park **2017**

For the development of Fleet Hackers - and immersive VR space simulation.

PUBLICATIONS

BeachBot: Crowdsourcing Garbage Collection with Amphibious Robot Network in ACM

1 March 2018

An interconnected network of UAS as a system-of-systems in IEEE

1 September 2017

An internetworked self-driving car system-of-systems in IEEE

1 June 2017

LANGUAGES

English Thai

Native speaker Native speaker

INTERESTS -

Computer Graphics Game Development Creative Writing

Concept Art/3D Space Exploration Astronomy

Modeling/Texturing/Animation