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SANTIPAB TIPPARACH
WEB APPLICATION AND GAMES DEVELOPER

👤 ABOUT

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.

💼 WORK EXPERIENCE

May 2016 – March 2019

Co-Founder
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.

Highlights

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.

April 2020 – January 2021

Senior Software Engineer
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.

March 2018 – April 2020

SQL Developer

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.

Highlights

> 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.

January 2016 – May 2018

Teaching and Research Assistanships

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 Transprotation) and UGPTI offices.

Highlights

> 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.

June 2013 – November 2015

Software Developer

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.

Highlights

> 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.

May 2012 – March 2013

Internship - Software Developer & Technical Designer

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.

✿ AWARDS

November 2018

Fargo Game Makers

🏆 1st Prize at Fargo Game Jam 2018

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

October 2018

Fargo Hackathon

🏆 1st Place at the Fargo Hackathon 2018

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

October 2017

Fargo Hackathon

🏆 2nd Place at the Fargo Hackathon 2017

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

July 2017

Fargo Game Makers

🏆 1st Prize at Fargo Game Jam 2017

Development of the prototype space horror survival game Ixion.

April 2017

NDSU Research Park

🏆 3rd place at the Innovation Challenge NDSU 2017

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

👥 VOLUNTEER

CHARISM STEM Program

February 2017 – May 2018

Teacher

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.

West Fargo Public Schools STEM Program
December 2018 – March 2019

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

uCodeGirl
June 2018 – June 2018

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

FIRST Robotics MidWest Regional Competition
March 2019 – March 2019

Webcast Operator
Ran the Twitch stream for the FIRST robotics competition.

◎ CONTACT

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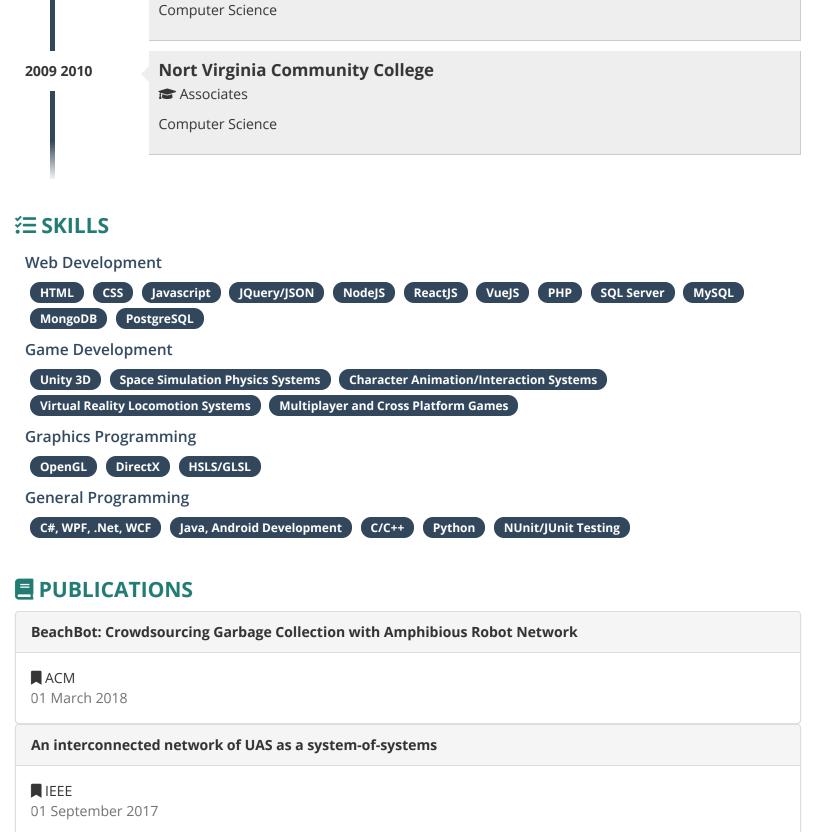
GitHub
rubentipparach

🏛 EDUCATION

2016 2019	**North Dakota State University** 🎓 Masters Computer Science
2010 2013	**Bemidji State University** 🎓 Bachelors

2009 2010 Computer Science

Nort Virginia Community College

🎓 Associates

Computer Science

⚏ SKILLS

Web Development

HTML   CSS   Javascript   JQuery/JSON   NodeJS   ReactJS   VueJS   PHP   SQL Server   MySQL   MongoDB   PostgreSQL

Game Development

Unity 3D   Space Simulation Physics Systems   Character Animation/Interaction Systems   Virtual Reality Locomotion Systems   Multiplayer and Cross Platform Games

Graphics Programming

OpenGL   DirectX   HSLS/GLSL

General Programming

C#, WPF, .Net, WCF   Java, Android Development   C/C++   Python   NUnit/JUnit Testing

📗 PUBLICATIONS

BeachBot: Crowdsourcing Garbage Collection with Amphibious Robot Network

🔖 ACM
01 March 2018

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

🔖 IEEE
01 September 2017

An internetworked self-driving car system-of-systems

🔖 IEEE
01 June 2017

♥ INTERESTS

Computer Graphics

Game Development

Creative Writing

Concept Art/3D Modeling/Texturing/Animation

Space Exploration

Astronomy