

# Santipab Tipparach

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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.

**Itch.io** [rubentipparach](#) **Twitter** [rubentipparach](#) **LinkedIn** [rubentipparach](#)  
**GitHub** [rubentipparach](#)

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

## EXPERIENCE

### Archenemy Interactive

**Co-Founder** Apr 2016 - Mar 2019

Founded group to develop VR content for commercial games and for local organizations and businesses. 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.

### Bushel Inc.

**Senior Software Engineer** Apr 2020 - Jan 2021

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.

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## Marvin Windows

**SQL Developer**    Mar 2018 - Apr 2020

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.

- Led 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.
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## NDSU

**Teaching and Research Assistanships**    Jan 2016 - May 2018

Employed as a teaching assistant for the computer science department in CS 160. Then transitioned into a Research 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.
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## OATI

**Software Developer**    May 2013 - Nov 2015

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 infrastructures.

- 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.
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## Karvakko Engineering

**Internship - Software Developer & Technical Designer**    Apr 2012 - Feb 2013

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.

## VOLUNTEERING

### CHARISM STEM Program

**Teacher** Jan 2017 - Apr 2018

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.

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### West Fargo Public Schools STEM Program

**Teacher** Dec 2018 - Feb 2019

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

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### uCodeGirl

**Teacher** Jun 2018 - Jun 2018

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

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### FIRST Robotics MidWest Regional Competition

**Webcast Operator** Mar 2019 - Mar 2019

Ran the Twitch stream for the FIRST robotics competition.

## EDUCATION

## North Dakota State University

Jan 2016 - Aug 2019

Masters - Computer Science

## Bemidji State University

Aug 2010 - May 2013

Bachelors - Computer Science

## Nort Virginia Community College

Aug 2009 - May 2010

Associates - Computer Science

## AWARDS

1st Prize at Fargo Game Jam 2018

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Fargo Game Makers

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

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1st Place at the Fargo Hackathon 2018

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Fargo Hackathon

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

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2nd Place at the Fargo Hackathon 2017

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Fargo Hackathon

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

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1st Prize at Fargo Game Jam 2017

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Fargo Game Makers

Development of the prototype space horror survival game Ixion.

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3rd place at the Innovation Challenge NDSU 2017

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NDSU Research Park

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

## PUBLICATIONS

BeachBot: Crowdsourcing Garbage Collection with Amphibious Robot Network

ACM

2018-03-01

[Link](#)

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

IEEE

2017-09-01

[Link](#)

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An internetworked self-driving car system-of-systems

IEEE

2017-06-01

[Link](#)

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## LANGUAGES

English

*Native speaker*

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Thai

*Native speaker*

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## INTERESTS

Computer Graphics

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Game Development

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Creative Writing

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Concept Art/3D Modeling/Texturing/Animation

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Space Exploration

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Astronomy

