

Jesus Villanueva-Segovia

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EDUCATION

Bachelor of Science in Computer Science

GPA: 3.97

Tennessee Technological University

Aug. 2021 – May 2025

EXPERIENCE

iCube Developer

Tennessee Technological University

Aug. 2024 – May 2025

- Spearheaded the development of a Next.js-based application designed to support underserved communities, enhancing accessibility and delivering impactful services.
- Developed social media feed activated by a electric eel at the Tennessee Aquarium in Chattanooga; using Python, Google Drive API, Apps Script, Make.com, and Threads API
- Collaborated with cross-functional teams to manage and integrate MySQL and MongoDB databases to enhance user experience.

University Academic Tutor

Tennessee Technological University

Aug. 2021 – May 2024

- Tutored students in Mathematics and Computer Science; Covered these topics: College Math, Introductory Statistics, Precalculus Algebra, Precalculus Trigonometry, Calculus 1, Calculus 2, and Intro to Problem Solving
- Customized lessons for students of diverse backgrounds and experience levels, improving retention and learning.
- Consistently received positive feedback from students indicative of providing clear explanations and guidance.

Warehouse Technician

CBC Group Co.

May. 2023 – July. 2023

- Streamlined inventory management by leveraging old warehouse software to track orders, packages, and work time.
- Trained and mentored new hires, improving team efficiency and operational success.
- Handled high-pressure situations effectively, ensuring smooth workflow during peak periods.

PROJECTS

Empower Project (Co-lead)

Tennessee Tech iCube

- Co-led the Empower App initiative with AGILE methodologies, delivering valuable services for the Upper Cumberland area.
- Developed a mobile app using Next.js and MongoDB; Which included: setting up the Github repository, setting up Next.js and the Mongo database, implementing wireframes, adding login and signup functionality, adding the pathway implementation, and making documentation for later developers
- Ensured project deadlines were met while upholding high-quality coding standards.

Web Harness/Mangrove (Navsea Dahlgren)

Tennessee Technological University

- Worked within a team to develop an application that aims for a secure and easy way to manage applications.
- Used React along with Hope UI and Bootstrap to develop a website that delivers a smooth experience.
- Used Rust, Rusqlite, and Utoipa to develop a website backend that delivers high-quality and secure functionality.
- Designed and implemented database schema with sqlcipher while ensuring security compliance for Navsea standards.

Electric Eel Threader

Tennessee Tech iCube

- Designed and implemented a system enabling a electric eel to trigger automated posts on Threads.
- Set up and programmed Raspberry Pi to take in audio feed and apply conditional logic to trigger a post; Implemented with Python, Google APIs, Meta APIs, and Integromat.
- Worked with Tennessee Aquarium and the iCube to install this system at one of their sites.

Bakery Management Website

Tennessee Technological University

- Collaborated on designing and building a bakery management website using .NET, Entity Framework, MySQL, and Vue.js
- Created RESTful APIs, integrating key functionality to improve business operations.
- Rapidly developed and deployed multiple Vue.js pages under tight deadlines, ensuring high-quality and responsive user interfaces.

Rocket Mongo Template

- Developed a Github template repository for a Rocket backend using Mongo and wrapped with Docker, helping streamline project setup and enabling other developers to quickly launch applications.
- Implemented JWT authentication to enhance security standards and streamline login functionality, ensuring safe and efficient user authentication.

Portofolio Website

<https://chromody.github.io/>

- Developed a portfolio website using React and Bootstrap hosted with Github static pages, with emailing capabilities enabled by Cloudflare Workers and EmailJS. Engineered a continuous deployment pipeline using Github Actions for code changes

Tennessee Road Safety Standards

<https://tnroadsafetystandards.org>

Tennessee Tech iCube

- Contributed to website features and maintenance; managing data integration to ensure high performance.

SKILLS

Languages: HTML/Javascript/CSS, Rust, Python, C#, C/C++

Database/Techs: SQL(MySQL, PostgreSQL, SQLite, SQLCipher), Non-Relational Databases(MongoDB), Mongoose, Rusqlite, .NET Entity Framework, MySQL Workbench, Table Plus, MongoDB Compass, MongoDB Atlas

Version Control Systems/Tools: Git, GitHub, GitLab, Github Desktop, GitKraken

Frameworks/Tools: React, Next.js, Vue.js, Node.js, Express, .NET, Rocket (Rust), Utoipa (Rust), Swagger, Docker, Bootstrap, Tailwind, DaisyUI, jQuery, Bcrypt, Visual Studio, Visual Studio Code, PyCharm