

Emanuel Pecson

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EXPERIENCE

JT4 LLC

Software Engineer

Las Vegas, NV
08/2023 - Present

- Modernized a deprecated badge photo pipeline with a full-stack **Next.js** app, restoring **4,000+ employee photos** across **5+ enterprise apps** by offloading media to **MinIO S3** to dynamically store and serve image assets as the company scales
- Spearheaded the development of an internal forum app while mentoring **2 SWE interns** throughout the project lifecycle, leading system design discussions and enforcing best security practices across all team code contributions
- Deployed a **Golang** backend microservice to offload frequent email workloads via **RabbitMQ**, enabling asynchronous processing that reduced core service load and improved system scalability
- Migrated **6+ apps** to **Keycloak** as the OAuth 2.0 provider, enabling authentication SSO consistency across the organization
- Developed a **RESTful API** using **C#** and **ASP.NET Core**, enabling employees across all departments to record work hours through a centralized system

Software Engineer Intern

05/2023 - 08/2023

- Delivered an internal file transfer app with **Nuxt.js** to mitigate the insecurities of a shared directory system, leveraging **Socket.IO** for real-time transfer status updates and ensuring secure migration of **~65 sensitive files monthly**
- Built a **Vue.js** and **SQL Server** solution to replace a bottlenecked spreadsheet process, decentralizing data entry and slashing update delays from **~1 day to ~1 minute**

General Atomics

Software Developer Intern

Poway, CA
06/2022 - 08/2022

- Delivered a code generator with **Python** to transform **30,000+ struct definitions** into a **C++** data model library, eliminating third-party update dependence and cutting data model update wait time by **97%**
- Developed unit tests for **C++** code using **GoogleTest**, integrating automated build-time validation into the **CI/CD** pipeline

Clark County Public Works

Geographic Information System Intern

Las Vegas, NV
01/2022 - 05/2022

- Automated the collection of phone configuration data from **600+ IP-addressable assets** using **Python** and **Selenium**, cutting manual inventory time from **~4 hours to ~20 minutes**

PROJECTS

Hoop Archives | Next.js, Java, AWS (S3, DynamoDB, Lambda, SQS), FFmpeg

emanpecson.com/projects/hoop-archives

- Engineered a video editor app that simplifies converting raw basketball footage into highlight clips stored in **AWS S3**, enabling users to stream plays and filter by player, dunks, 3-pointers, ankle breakers, and more
- Architected a video processing microservice using **Java** and **AWS Lambda** to handle compute-intensive tasks with **FFmpeg**
- Integrated **Auth.js** with **AWS Cognito** and a **Google IdP** to enable secure access control across protected routes and APIs

NBA Matchup Metrics | Next.js, Python, MongoDB, Selenium

emanpecson.com/projects/matchup-metrics

- Developed a **React.js** app for building custom NBA lineups and comparing player performance across key statistical metrics
- Designed a Python script to scrape NBA.com with Selenium and store 500 player records into a MongoDB database

SKILLS

Languages: JavaScript/TypeScript, Python, Go, C#, Java, C++, HTML/CSS

Frameworks: React.js, Next.js, Vue.js, Nuxt.js, Tailwind CSS, ASP.NET Core

Tools: AWS (S3, Lambda, DynamoDB, SQS, Cognito, CDK), Git, Node.js, Prisma, Docker, Auth.js, MinIO, Figma

EDUCATION

University of Nevada, Las Vegas

B.S. Computer Science — Cum Laude, GPA: 3.86/4.00

08/2020 – 12/2024, Las Vegas, NV