

# Emanuel Pecson

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## EXPERIENCE

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### 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 timecard API using **C#** and **ASP.NET Core**, enabling employees across all departments to submit weekly 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 full-stack **Nuxt.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

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**Hoop Archives** | Next.js, Java, AWS (S3, DynamoDB, EC2, Lambda), FFmpeg

[emanpecson.com/projects/hoop-archives](https://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** with **AWS EC2** to handle compute-intensive tasks with **FFmpeg**, enabling efficient editing on **6GB+ footage**

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

[emanpecson.com/projects/matchup-metrics](https://emanpecson.com/projects/matchup-metrics)

- Developed an 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

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

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

**Tools:** AWS (S3, Lambda, DynamoDB, EC2, CDK), Git, Node, Prisma, Docker, SQL Server, MongoDB, MinIO, Figma

## EDUCATION

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**University of Nevada, Las Vegas**

B.S. Computer Science | 3.86/4.00 GPA (Cum Laude)

Las Vegas, NV  
08/2020 - 12/2024