Emanuel Pecson

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EXPERIENCE

JT4 LLC   Las Vegas, NV
Software Engineer   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 development of an internal forum app while mentoring **2 SWE interns**, leading system design discussions and managing code contributions via **Git** across **20+ merge requests**
- 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
- Automated CI/CD with **GitHub Actions** to enforce code standards and generate **Docker** images for streamlined deployment

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**
- Leveraged **TypeScript** and **Prisma ORM** to ensure type-safe interaction between application code and a **SQL Server** database

General Atomics   Poway, CA
Software Developer Intern   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   Las Vegas, NV
Geographic Information System Intern   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 run compute-intensive **FFmpeg** tasks, leveraging **AWS SQS** to offload workloads asynchronously in the background
- Integrated **Auth.js** with **AWS Cognito** and a **Google IdP** to enable secure access control across protected routes and APIs
- Automated cloud infrastructure setup with **AWS CDK**, ensuring reliable, version-controlled provisioning of resources

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, Go, Python, 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 ORM, Docker, Auth.js, MinIO, Figma, RabbitMQ

EDUCATION

University of Nevada, Las Vegas   Las Vegas, NV
B.S. Computer Science | 3.86/4.00 GPA (Cum Laude)   08/2020 - 12/2024