Joshua Narezo

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Experience

Senior Software Engineer | Qualcomm   **February 2022 – Current**
- Spearheaded design and development of client-facing API gateway and node observability solution for on-prem and cloud-hosted firmware compilation, saving $60k+ annually.
- Mentored summer intern throughout 3+ month full-stack development project, from start-to-finish.
- Onboarded 4 members on the team's development process, tooling, and codebase.
- Reduced and optimized microservice deployment and CI/CD pipeline time by more than half (50%).
- Led improved reliability and scalability of existing services, adding blue-green deployment across codebase.
- Implemented 5+ services with build and release pipelines, unit tests, functional tests, and stress tests.

Data / Systems Engineering Intern | Lytx   **June 2021 – December 2021**
- Explored, tested, and implemented methods to reduce vehicle telemetry data usage by up to 99%.
- Wrote a DVR filesystem on device firmware that saves and uploads camera images at 720p in real-time.
- Analyzed, enriched, and indexed over 100GB of geospatial vehicle IoT data across the nation.
- Packaged a local development environment for developers to create and test custom device firmware.

Embedded Systems Intern | NIWC Pacific   **June 2019 – August 2019**
- Programmed wireless communication between 2 ARM microcontrollers in C/C++ using LoRa radio-frequency technology to monitor battery voltage in tactical vehicles over long distances.
- Tripled receivers' expected battery life of 2 months to 7+ months while maintaining similar energy usage.
- Presented accomplishments and discussed project plans among project sponsors and stakeholders.

Projects

Atelier - Class Notifications & Reminders Message Bot   (atelier.fishcake.dev)
- Developed an interactive instant messenger bot in JavaScript that tracks course assignment changes every 24 hours and sends personalized due-date reminders at any specified time.
- Monitored a NoSQL database hosted on MongoDB Atlas with 3 collections to store user configurations.
- Deployed on Google Compute Engine with Circle CI and supported 125+ students in 3+ communities.

Gakuen - Video On-Demand & Streaming Pipeline   (github.com/jnarezo/gakuen)
- Wrote 5 microservices in Node.js that process media for streaming on the web using DASH.
- Designed encoding pipeline using asynchronous communication (RabbitMQ) amongst services.
- Shipped with compatibility for bare-metal or custom Docker containers built on top of Alpine Linux.

Education

University of California - San Diego   **September 2019 – December 2021**
B.S. Computer Engineering   **GPA: 4.00**
Coursework: Recommender Systems, Operating Systems, Data Structures, Algorithms, Networking, Compilers

Skills

Areas: Backend, Frontend, Fullstack, Cloud Architecture, Messaging, Scalability, CI/CD, Linux/Unix, Agile, Web
Languages / Frameworks: C#, Java, TypeScript, Python, JavaScript, Node.js, React, Next.js, HTML, CSS, Go, C/C++
Tools / Technologies: AWS, PostgreSQL, Kubernetes, Rancher, Google Cloud Platform (GCP), Shell, Bash, Ansible, Figma, Docker, Jira, Git, GitHub, MQTT, DASH, ffmpeg, Unity, Prisma, NoSQL, SQL, Azure DevOps, CloudFront