

Neil N. Toledo

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EDUCATION

University of California, Berkeley | Berkeley, CA | Aug 2015 – May 2019
B.S. in Electrical Engineering and Computer Science (EECS)

PROFESSIONAL EXPERIENCE

[Zume, Inc.](#) | **Site Reliability Engineer [2019 - 2020]**

- Worked extensively with Google Kubernetes/GCP, Datadog and Helm Charts
- Wrote scripts to automate setup and deployment of infrastructural and application monitoring using a combination of Python and Bash scripts.
- Started an initiative and infrastructure proposal to consolidate our company wide usage of 3rd party monitoring services to only a select few services in order to achieve better infrastructural organization and reduce unnecessary service costs.
- Revamped SRE On Call docs and practices and pushed initiatives for better team documentation.

[Infinite Uptime](#) | **Data Science Intern [Summer 2018]**

- Developed a responsive data visualization app for monitoring movement and conditions of manufacturing presses and machines using Python, Flask, and the Bokeh library.
- Data visualization app was deployed using Docker, Google Compute Engine and Kubernetes.
- Added a Flask API endpoint that invokes a Google Compute Engine VM instance to run Google Big Table data migration jobs that automatically shutdown afterwards to minimize VM uptime and costs.

PERSONAL PROJECTS

[Keel Helm3 Provider - Open Source Contribution](#)
Summer 2020

Added support for Helm v3 to [Keel.sh](#), an open source Kubernetes Operator that automates Helm and Application version updates. Upgraded Golang dependencies to work with both Helm v3 and Helm v2 and wrote and added a new "Helm3 Provider" to the application source code.

[Portable CI/CD System](#)
Spring 2020

Developed a custom polling based CI/CD system with portability in mind. Intended to be deployed on Kubernetes using [Helmsman](#) and ConfigMaps for configuration. Includes separate pipelines for both Docker Images and Helm Charts while allocating code ownerships appropriately between developers..

[MMORPG System - Software Design Document](#)
Summer 2020

Wrote comprehensive design documents for the software architecture of an web MMORPG project featuring a distributed system deployed using Kubernetes.

- Features custom implementation details for a horizontally scaling fleet of game server instances to divide authority over in-game geographical areas.
- Includes a microservice architecture for implementing additional services such as in-game chatting, character data management and quest management.
- Component design documents include step by step flowcharts for describing exactly how features are implemented and interactions between different components.

[CMS API - Software Design Document](#)
Summer 2019

Wrote a Software Design Document of an open source CMS API project for freelance web developers that provides an interface for their clients to login and interact and update their site's content. The Design Document covers the project's Microservice Architecture, Data Design, REST API Design, and Interface Design with some implementation details.

Other Projects

[Personal Site/Blog](#): Personal Jekyll website for showcasing projects and maintaining a consolidated reference of notes. Website also showcases and maintains documentation for larger projects.

[mini5-engine](#): Barebones game engine for JavaScript and HTML5 Canvas. Handles keyboard and mouse input processing, robust update and draw loops, scene and object rendering and basic AABB collision detection. Published on github and npm.

[Worc_Lock](#): Virtual work clock featuring a CRUD API using Express.js, React.js, and SQLite.

SKILLS

Technical Languages: Python, Javascript, Golang, Java, C, Bash Scripting

Additional Technologies: ReactJS, HTML, CSS, SQL, Django, Flask, BokehJS, Jekyll, NumPy and Pandas, Express.js

Software/Tools: Google Compute Engine and Kubernetes, Docker, Helm, Datadog, Git/Github,

Unity, Adobe Illustrator, Autodesk Maya, Fusion360

Languages: Fluent in English and Tagalog