

Ernest Ng

BACKEND ENGINEER

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"To err is human; to refactor, divine."

Key Work Experience

ByteDance

SITE RELIABILITY ENGINEER INTERN

Singapore

Jan. 2021 - Present

- Designed and deployed stack platform to manage multi-region multi-language multi-timezone on-call rostering
- Developed a distributed and stateless bot framework that reduced time taken to create a new bot by up to 98.5%
- Leveraging on self-written framework to design platform to automate playbooks
- Obtain sales lead for Lark product

Builderlytics

PROJECT LEAD

Remote, Singapore

Aug. 2019 - Dec. 2020

- Handled weekly client requirements and convert them into infrastructure and architectural designs
- Led a team of 25 from conceptualization to production
- Mentored development team in Agile SDLC best practices
- Trained hires SOLID principles and TDD to better facilitate Domain-Driven development
- Fully automated pipelines using modern DevOps tool and cloud infrastructures such as Docker Swarm, AWS and Ansible
- Manage remote working with collaboration tools such as pCloud, Notion and GitLab
- Deploy hardware Kubernetes cluster with Helm charts using K3S
- Setup centralized logging system with EFK
- Setup distributed tracing and monitoring system with Grafana, Prometheus and Jaeger

Innosparks, ST Engineering

BACKEND ENGINEER

Singapore

Jul. 2018 - Jul. 2019

- Built healthcare platform for post-acute care for Singapore's Ministry of Health
- Led team to implement RESTful API server in .NET Core in C#
- Setup authentication integration with Auth0 as Identity service
- Provisioned manageable infrastructure with on Azure with Azure ActiveDirectory
- Deployed centralised monitoring environment (Application Insights) which gathers system and run-time metrics from Azure resource nodes
- Built fully automated CI/CD pipelines on AzureDevOps with Azure and Docker
- Automated load tests in staging environment for performance testing
- Devised a computer vision algorithm to extract a patient's particulars from the National Registration Identity Card
- Built prototype of frontend project in React.js

Skills

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|----------------------|---|----------------------------------|--------------------------------------|
| Programming | Proficient C#, Go, Typescript | Fluent Ruby, Javascript | Comfortable C++, Rust, Java |
| DevOps | Docker, Terraform, GitLab CI, AzureDevOps, Azure, AWS, Digital Ocean, Ansible, Github Actions | | |
| Back-end | Ruby on Rails, Express, ASP.NET Core, Gin, Rocket.rs | | |
| Front-end | Vue.js, Vuex, React, Redux, Webpack, Gulp.js, Babel, SASS | | |
| CNCF | Docker, K3S, Helm, ArgoCD, LinkedD, Ambassador, Tyk, Traefik, Lon | | |
| Observability | Prometheus, Grafana, Jaeger, Loki, EFK, Thanos | | |

Projects

CyanPrint

CREATOR

Templating Engine

<https://cyanprint.dev>

- An NPM CLI built to empower interns to kickstart projects without the complexity of configuration and setup by providing production-ready templates for each project type (Typescript)
- Restful API Server to host templates, first-class integration with CLI (Digital Ocean, Docker, GitLab CI, Ruby on Rails, PostgreSQL, AWS S3, Auth0)
- Token-based CLI authentication and JWT-based authentication with Auth0 on the API Server
- Landing Site to sign up for an account and browse for templates (Vue.js, Netlify)