

# Alan Yeung

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*"Intellectuals solve problems, geniuses prevent them." - Albert Einstein*

## Experiences

### Twilio

SENIOR SOFTWARE ENGINEER

Denver, CO

Dec. 2021 - Present

- Built our scalable billing usage service and helped successfully launch the service
- Developed asynchronous serverless applications integrated with 3rd party partners (such as GCP and Azure)
- Planned and executed necessary permissions removals for 20,000 user accounts
- Refactored integration tests to allow for parallel runs decreasing test times by 30% and increasing readability
- Connected built in shell commands to perform a data audit in a few hours that would have taken days to write from scratch
- Technologies utilized: Golang, Bash, AWS (Lambda, APIGateway, DynamoDB, Cloudwatch), Buildkite pipelines

### Lockheed Martin

SENIOR FULL STACK ENGINEER: TEAM LEAD

Littleton, CO

Mar. 2021 - Dec. 2021

- Lead the Enterprise FOSS team of ~6 developers through feature deployments, team turnover, and numerous fires
- Trained over 5 new developers in the extensive system architecture and guided them in learning development best practices
- Reviewed (countless) merge requests to ensure code quality, share knowledge, and improve code reading proficiency
- Optimized our download log processing, increasing our message processing rate by over 250%
- Developed improved system monitoring to alert on common issues, increasing our issue detection rate by over 95%
- Balanced the priorities of users, stakeholders, and developers to guide system development and architecture decisions
- Updated onboarding documentation and processes to make it easier and quicker for new developers to contribute to the code base
- Implemented cultural team practices to increase knowledge transfer, improve test coverage (by over 10%), and make work more fun

FULL STACK ENGINEER: LEADERSHIP DEVELOPMENT PROGRAM ROTATION 3

Sep. 2020 - Mar. 2021

- Developed and supported the Enterprise FOSS service built on Kafka, Elasticsearch, and over 10 distributed micro services
- Helped develop and deploy a Go reverse proxy to authenticate users reliably serving 1,000,000+ requests a day
- Implemented a secure hash caching process that increased security and decreased CPU load by more than 90% on our reverse proxy
- Debugged deep system issues, on the front and back end, and developed tests to ensure issues don't reoccur
- Refactored Spring Boot micro service, utilizing depth first search, to unpack and deliver file archives more reliably
- Developed robust reactive Spring Boot APIs for data interaction (querying and deletion), along with tests to ensure code quality

SOFTWARE ENGINEER: LEADERSHIP DEVELOPMENT PROGRAM ROTATION 2

Aug. 2019 - Sep. 2020

- Developed real time Spring Boot stream processing micro services using Kotlin and Python
- Developed Spring Boot APIs for secure and simple data consumption of our time series data
- Developed tests to ensure code quality, increasing our code coverage by more than 10%
- Updated and pushed code using a development pipeline featuring Jenkins/GitLab, Docker containers, and OpenShift
- Architected and deployed system monitoring and security with Grafana, Prometheus, and Open Policy Agent
- Performed as team Scrum Master, and helped us adhere to agile development principles

## Skills

### Technical Tools

Go, Kotlin, Python, NodeJS/TypeScript, Java\*, Shell, Spring Boot, Reactive framework, Kubernetes/OpenShift, Docker, Ansible, OAuth, GitLab CI/CD pipelines, Elasticsearch, Kafka, AWS EC2/DynamoDB/S3, among others  
\*Previously proficient, expected time back to proficiency ~one week

## Projects

### My Site (work in progress)

<https://www.imakethings.dev/>

MY PERSONAL WEBPAGE FOR SIDE PROJECT FRONTEND HOSTING AND BLOGGING

Feb. 2021 - Present

- Developed personal webpage primarily written in Typescript using React and NextJS frameworks
- Utilized Material UI for frontend components to add a more professional look
- Developed NextJS APIs for blog filtering and associated unit tests
- **Tech used/learned:** ReactJS, NextJS framework, Typescript, Material UI, GitHub Actions for automated tests, Vercel deployment

### Advent of Code 2020

<https://www.imakethings.dev/posts/advent-of-code-2020>

COMPLETED ADVENT OF CODE 2020 PROGRAMMING ADVENT CALENDAR IN GO

Dec. 2020 - Jan. 2021

- Practiced key Test Driven Development concepts to guide my code creation and validate its quality
- Developed my knowledge of Go, while spreading holiday cheer at the same time
- Tested and improved my knowledge of programming concepts such as recursive algorithms, dynamic programming, linked lists, the Chinese Remainder theorem, and number theory
- **Tech used/learned:** Golang, Gitpod

## Education

### Colorado College

Colorado Springs, CO

B.A. IN COMPUTER SCIENCE AND ECONOMICS SUMMA CUM LAUDE, OVERALL GPA: 3.9,

MAJOR GPA (FOR BOTH): 4.0

May 2012 - May 2016

Awards/Honors: Distinction in Economics, Deans List (all years), Kenneth J. and Elizabeth Hare Curran Award in Economics, Euclid Scholarship, Buick Achievers Scholarship, Douglas County Scholarship, American Chemical Society Award, and National AP Scholar

Misc achievements: scored in the Putnam competition (2016) and completed a full marathon (2017)