



linkedin.com/in/gnawang



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# ALEXANDER A. WANG

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## SKILLS

**Languages:** Python, HTML, CSS, JavaScript, Java, TypeScript, SQL

**Technologies:** React, Redux, S3, SNS, SQS, Dynamo, Lambda, ECS, CloudFormation, CloudWatch

**Disciplines:** Agile, Scrum, MVP Prototyping, TDD, OOP

## PROJECTS

 **A+ External** – External Merchandising Content API *Java, Docker, ECS, Route53, VPC, CloudFormation*

- Launched a RESTful API to securely provide content operations to external Amazon customers
- Deployed Docker images in serverless ECS clusters to cover all availability zones across three continents
- Utilized infrastructure-as-code to automatically generate serverless hosts, virtual networks, and routing
- Created a library synchronizing auto-generated AWS alarms and dashboards with internal monitoring systems

 **BADGE** – Global Bonus Amortization Engine *Java, S3, DynamoDB, Lambda, SNS, SQS*

- Launched a data processing engine to calculate bonus data for all 500,000+ employees across Amazon
- Deployed daily ingestion jobs to retrieve 500+ gigabytes of employee data from 5 upstream sources
- Utilized Lambda and SNS/SQS to orchestrate data aggregation workflow and load to downstream services
- Constructed monitors to detect malformed data and automatic backfill processes to rectify errors

 **GRACE** – Automated Financial Reserve Calculation Engine *TypeScript, React*

- Launched a web service to automatically calculate month-end reserves for accountants across Amazon
- Constructed frontend from the ground up with React and created automated production deployment pipeline
- Drove biweekly customer meetings to iteratively fine-tune functionality and UX requirements
- Refactored code base to increase code coverage to 90% and reduce incoming customer issues by 46%
- Onboarded 12 reserves saving over 100,000 hours of manual calculation time for accountants

## EXPERIENCE

**Amazon.com** – Software Development Engineer II *Aug 2018 – Present*

- Coordinated with engineers and managers through biweekly agile sprints to launch 5 services internationally
- Orchestrated regular team design reviews to iterate on new architecture and refactor existing infrastructure
- Spearheaded migrations to autogenerated serverless cloud infrastructure expediting development time
- Directed operational efforts enforcing autogenerated metrics/documentation and 90% code coverage
- Authored on-boarding curriculums and conducted weekly mentoring sessions for new-hires and interns

**Basil Tech** – Engineering Lead *Mar 2020 – Present*

- Led a team of volunteer engineers in weekly sprints to develop web services for customers internationally
- Drove documentation and code quality efforts to reduce operational setbacks and expedite onboarding
- Constructed monthly MVPs to update stakeholders and gather user feedback for product pivoting

**Duo Security** – Engineering Intern *May 2016 – Aug 2016*

- Constructed a free phishing vulnerability analysis tool with a team of ten engineers
- Refactored campaign launch process to expedite onboarding of new potential vulnerabilities
- Detected security vulnerabilities in over 27% of first 2,000 campaign recipients in initial deployment

## EDUCATION

Master of Engineering in Computer Science

**University of Michigan** - Ann Arbor, MI

**GPA** - 4.00/4.00 | **Graduation** - April 2018

## MISC

- Member of The National Eagle Scout Association
- Studied abroad at Shanghai Jiao Tong University
- Self-proclaimed master air fryer chef