Kaizen Conroy

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Experience

Software Development Engineer – Amazon Web Services
8/21 - Present, New York, NY **(TypeScript, Python, Git, AWS)**
- Built and maintained cdk-pipelines-github, a CI/CD solution backed by GitHub Workflows for deploying CDK apps to AWS. 150+ GitHub Stars and 3000+ weekly npm downloads.
- Reduced the CDK module size from 250+MB to 55MB by designing an end-to-end protocol for interacting with a compressed version of the JSII assembly file that governs multi-language support.
- Implemented a tool that generates a compilable example for every public CDK API, either by sourcing existing examples in READMEs or generating synthetic ones. Exposed open-source as cdk-generate-synthetic-examples with 2000+ weekly downloads.
- Designed a bespoke incentive system called CDK Merit Badger that assigns a badge to every open-source contribution received, as well as underlying workflows that helped guide 'beginning-contributors' to mentorship from tenured contributors.

Software Development Engineer Intern – Amazon Web Services
6/20 - 8/20, Seattle, WA **(TypeScript, Git, AWS Certified Cloud Practitioner)**
- Contributed features in Lambda, CloudWatch, Autoscaling, etc for open-source, infrastructure-as-code Cloud Development Kit.
- Fully owned all phases of the software development lifecycle for new CDK Construct modeling AWS CloudWatch Synthetics, launching it in Developer Preview a month ahead of schedule.
- Built a reference app using the CDK framework for AWS Synthetics demonstrating its integration with AWS CodePipeline for enhanced CI/CD efforts. Used AWS Lambda, ApiGateway, CodePipeline, CloudWatch, and SNS.

Senior Computer Science Instructor – Juni Learning
1/19 - 8/21, Remote **(Java, Python)**
- Cultivated student understanding in data structures, AP Computer Science, and USA Computing Olympiad (Bronze & Silver).
- Developed curriculum for a new Python Algorithms course, conducted diagnostic trial lessons, screened instructor applicants.

Projects

CryptoNight Code Words Game: www.cryptonight.codes – Personal
1/21 - 2/21 **(JavaScript, Bootstrap, Node.js, Express.js, Socket.io, MongoDB, AWS, nginx)**
- Built online multiplayer word game similar to Codenames where users team up to uncover bombs and avoid the 'cryptonight' word.
- Features include create/join room, single player lobby, live chat with stats by command, full gameplay, separate superhero/sidekick interface, suite of customizable settings and team selection, per game statistics, all-time leaderboard, and much more.
- Deployed production server on AWS EC2 with Elastic IP, AWS Route 53, and nginx to route both http and https traffic to the server.

Ticket to Ride Board Builder – Personal
3/20 - 5/20 **(Swift, XCode)**
- Built iOS app with MVC architecture that lets users build custom railroad network of cities and tracks.
- Developed underlying graph structure from scratch and implemented Dijkstra's algorithm to find shortest path between cities.

Education

Williams College - B.A., Computer Science
9/17 - 5/21, Williamstown, MA (GPA: 3.65, Computer Science GPA: 3.77, *Dean's List*)
- **CS**: Programming Languages **(Lisp, Scala, C++, Java, Rust)**, Software Methods **(Swift)**, Applied Algorithms **(C)**, Theory of Computation, Algo. Game Theory, Algorithm Design / Analysis, Data Structures **(Java)**.
- **Math**: Graph Theory, Linear Algebra, Discrete Math, Multivariable Calculus, Game Theory, Econometrics **(Stata, R)**.

Columbia University – Visiting Student in Computer Science
9/19 - 12/19, New York, NY (GPA: 3.64)
- Microservices **(Python)**, Advanced Programming **(C, C++)**, Artificial Intelligence **(Python)**, Databases **(Python, SQL)**.

Leadership & Interests

Williams Ultimate Frisbee Organization – Captain
- Donovan Award finalist (top DIII player in the country), earned 2nd-team All-Region honors '19, and was Freshman-of-the-year '18.

Additional Interests
- Disc Golf, Award Travel, Sabermetrics, Ticket to Ride (board game), Poker, Chess, The Beach Boys.