# Neil Murphy

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Senior Backend Engineer specializing in node.js, Python 3, Amazon Web Services. Skilled at avoiding nested loops and extra database calls. Strive to write consistent, maintainable, readable code with no surprises.

## Technical Skills

JavaScript, node.js, Python, AWS Lambda, S3, SQS, Kinesis, DynamoDB, RESTful APIs, TDD, Behave, Mocha, Chai, Agile, Technical Writing + Documentation

## Experience Highlights

**Proteus Digital Health**, Redwood City, CA

### Senior Software Engineer, Cloud Services                         Aug 2019 – Present
- Architected and implemented a highly flexible rules engine framework from the ground up. Used to evaluate changes in patient behavior in order to calculate their current priority score, to support doctors in effective patient triage. Evaluation of rules triggered by Kinesis stream. Leveraged SQS for decoupling and batch processing. Performed incremental database lookups with caching of already-retrieved data. Results stored in DynamoDB, with results published new API endpoints for consumption in doctor web portal.
- Overhauled user configuration logic, including creating new API endpoints, DynamoDB tables and a lambda to handle API requests and validation. Wrote database backfill functions to migrate old data structures to new ones in production. Implemented caching on lambda initialization to drop global resource lookups from 1500ms to 500ms.
- Worked closely with product managers to define requirements, and collaborated with frontend devs to design API interfaces for new features. Worked with QA and SI test engineers to ensure quality of new features.

### Software Engineer, Cloud Services                         Oct 2017 – Aug 2019
- Design and expand features in Python, node.js, and AWS serverless architecture to support new features for web, iOS, and Android teams.
- Cloud representative to frontend product and feature teams, providing options and workload estimates.
- Owned, developed, maintained, and provided troubleshooting and support for Python mock data generation tool. Used by all product teams to create user resources and metric data in Cloud to develop new features.
- Implemented Python command-line tools for listening to DynamoDB stream for debugging and uploading files to S3 from local machine using Boto3 SDK.

**GoPro**, San Mateo, CA

### Software Engineer, Cloud Integration                         Jun 2016 – Apr 2017
- Built GoPro's developer documentation platform. Wrote 80+ pages of API integration content w/ sample code.
- Worked closely with developers and product owners on other teams to guide API integration with our 6 backend services: OAuth, Accounts, Video and Image Processing, Device Management, Notifications, Subscription and Billing.
- Designed new API endpoints based on customer requirements and feedback.
- Wrote scripts to scrape JSON schemas and generate endpoint parameter tables for API docs.
- Performed QA, troubleshooting, and regression testing.

## Side Projects

### irl | full stack engineer                         www.irl.events
An ultra-local live feed of user-created events which integrates the Google Maps API.
- Implemented chat features and socket-based eventing with Socket.io.
- Wrote features to get device GPS location and calculate distance to other points in database.
- Wrote shallow-rendering unit testing suite for React.js client using Mocha and Chai. Refactored to run headlessly during continuous deployment using PhantomJS and Travis-CI.

### nodeVSA | developer                         github.com/wnmurphy/nodeVSA
Stock options utility which scans several hundred tickers for profitable trading signals.
- Built in node.js. Features data transformation, signal scans, export to CSV, and command line interface.
- Uses Promise-based requests to consume third-party RESTful financial API.

## Education

**Hack Reactor** | Advanced Immersive Software Engineering -  San Francisco, CA          **2016**
**De Anza College** | Certificate in Technical Writing -  Cupertino, CA          **2013**
    Produced full-length user's guide for developing Android applications. Java coursework.
**University of California Santa Barbara** | B.A. in Philosophy and Sociology  -  Santa Barbara, CA          **2009**