Robert N. Yang

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PREVIOUS EXPERIENCE:

Oct 2022 - Jan 2025   Amazon Web Services (AWS) Software Development Engineer - Data and ML Org
- Alfbus/Journal Streaming team - high performance replicated log data streaming service for internal customers like S3, Kinesis, DynamoDB, etc… Maintained a high OE bar on low level distributed systems and resolved over 100+ customer issue tickets as oncall engineer
- Launched a new internal network monitoring and auditing Java microservice with EC2 APIs to scan all hosts on the dataplane VPC/subnet and ensure security compliance - successfully identified and fixed over 50 noncompliant hosts, reducing security/customer support tickets by 20%
- Led a team of 3 other junior engineers to design and prototype an internal customer QA Chatbot utilizing Claude Sonnet + LangChain APIs and AWS Bedrock for RAG.
- (AWS Lex) - Deployed a full stack Java Spring Boot and React web console allowing customers to search NLP/ASR metadata from DDB/S3 buckets, reducing chatbot debugging time by 40%

May - Aug 2021   IBM Extreme Blue Software Development Engineer Internship - Cloud and Cognitive Software
- Worked on a 5 person agile team to build a Full Stack NLP Analytics Cloud Service using React.js, Flask, Open Source NLP APIs (NLTK, SpaCy), and IBM Watson NLU
- Designed and created custom rule-based NLP/AI and web backend component of our application - improved accuracy and speed of results for model; **Patent submitted for our NLP model design**

Jun - Dec 2020   CapitalOne Tech Incubator Software Development Intern - C4ML
- Developed a Python API for NER labeling of unstructured data as well as computing of NER statistics, utilizing custom-built TensorFlow Neural Networks
- (Fall Co-op) Implemented and Trained a custom ASR ML model for audio transcription using ESPnet API, achieving ~95% accuracy for audio transcription on NIST testing dataset

COMPUTER SKILLS:

Languages: **Java, Python**, **JavaScript**/Typescript, Rust, R, SQL, Bash, C, Ruby, HTML/CSS

Applications: AWS (EC2/S3/DynamoDB/VPC/Bedrock), Git, Jira/Zenhub, TensorFlow/Keras/Pytorch, SpaCy, NLTK, LangChain + Claude Sonnet, React, Guice, MongoDB, JupyterLab, Mockito/Junit, Maven/Gradle

EDUCATION:

2018 - May 2022   University of Maryland, College Park: University Honors College Program
- B.S. - Computer Science Major, Philosophy Minor, GPA - 3.75 (Graduated with Honors)

EXTRACURRICULAR ACTIVITIES/PROJECTS:

Oct 2019   BigRedHacks 2019:
Built a first aid mobile app using React-Native and IBM Watson Visual Recognition with hosting by Google Cloud for IBM's Code for Good challenge https://devpost.com/software/poc-doc

Mar 2019   UMD XR Club:
Integrated storybooks with AR to create a more interactive reading experience for children using Vuforia image recognition, and Unity AR/VR. https://github.com/ogennaumeozulu/ARStorybook

AWARDS:

2022   3rd Place (Gold) ICPC Mid-Atlantic Competition for UMD

2019   BigRedHacks IBM Sponsor Code For Good Top 5 Hackathon Projects

2017-2018   Siemens Math, Science, Technology Competition, Regional Finalist - Scholarship Awarded