

Walid Khan

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EDUCATION

- **Stony Brook University** Stony Brook, NY
Bachelor of Science - Computer Science GPA: 3.65 Sept 2019 – Dec. 2023
 - **Relevant Courses:** Computer Vision, Computer Networks, Cloud Computing, Machine Learning, Operating Systems II, Software Engineering II, Computer Architecture, Computational Theory, Systems II, Statistics, Data Structures, Linear Algebra, Discrete Math, Programming Paradigms and Abstractions, Object Oriented, Multivariable Calculus

EXPERIENCE

- **Amazon** New York, NY
Software Development Intern June 2022 - Sept 2022
 - **Investor Portal:** Constructed a Full Stack metrics dashboard for Amazon physical store ads screen investors. Displayed processed customer impression data using a Coral-Lambda backend and a React (JS + TS) frontend. Used internal Amazon material set and Materials UI for the frontend UI, formatted using SCSS and Styled-Components. Used Cognito and JWT for authentication in querying a central DynamoDB containing real time user impression data. Implemented an AWS NLB (Network Load Balancer) and ALB (Application Load Balancer) to keep the service highly available on peak traffic hours. Used AWS Cloud Watch to create backend monitors tracking response times, error rates, and transaction tracing - in line with Amazon's Operational Excellence. Created integration tasks for future development at off-boarding. Managed DLQ and SV (Severity) Tickets for the service.
- **Amazon** Seattle, WA
Software Development Intern June 2021 - Sept 2021
 - **MLA Bandit API:** Developed an API endpoint for integration with our strategy evaluation and recommendation service for marketers(AdOps). Assisted in developing Multi-armed Bandit models used to evaluate customer impression data and recommend logistical strategies - Utilized by over 20K marketing associates. Created adapter applications to integrate with the Bandit API. Streamlined a data processing system from DynamoDB using Bash and AWS Kinesis. Developed and implemented internal multivariate regression algorithm using AWS SageMaker. Leveraged elastic load balancing and AWS CloudFront to handle high load on backend endpoint. Created integration and unit test cases. Managed SV Tickets (Severity Tickets) at severity level 3 and higher. Received return offer for June 2022.
- **Stony Brook University** Stony Brook, NY
Computer Science T.A Aug 2021 - Dec 2021
 - **CSE 316:** Introduction to systematic design, development and testing of software systems, including event-driven and Web programming, information management, databases, principles and practices for secure computing, and version control. Held weekly office hours to help students debug code assignments and refine projects by incorporating MERN SDLC. Conducted weekly recitations alongside the class professor. Constructed and graded weekly quizzes.

PROJECTS

- **Android Object Detection App** Feb 2020
Harvard - MakeHarvard Challenge
 - Built with TFLite and Android Studio. Applied Socket Threading and Thread Collision correction system. Used pre-trained vision model and used soft-max to pool into a Linear SVM that identifies objects. Created and enabled an "auto connect" feature with the requested bluetooth endpoint. Efficiently sends striped arrays dictating depth, relative position, and 3D degree offset.
- **Cinemix - Capital One Summit** May 2021
Capital One Software Summit Challenge
 - Built with Django, Pycharm and ODMb API. Created with vanilla JS/HTML with a purely python backend. Used a MongoDB (Pymongo) database to store movie metadata in a cache. Efficiently searches open source movie database and dynamically loads requested pages. Deep depth search sort algorithm created using a preloaded priority queue maintained in MongoDB.

PROGRAMMING SKILLS

- **Languages:** Java, C++, C, Python, Ruby, JavaScript, TypeScript, Haskell, GO, Scala, SQL, HTML/SCSS
- **Technologies:** ReactJS, Django, NodeJS, Express, Numpy, PyTorch, OpenCV, Tensorflow
- **Platforms:** AWS, GCP, Docker, Android Studio, Tableau, Jupyter Notebook, SageMaker, PostgreSQL
- **Machine Learning:** Random Forest, Regression (Linear + Poly), CNN/RNN (Neural Net), LSTMs, CV

ACHIEVEMENTS

Capital One Summiteer x2 • Lawrence E. Noonan Scholarship • Presidentials Scholarship Undergraduate (B.S)
• FTC Robotics Innovation Award x2 (Team 12178)