MANISH BALAMURUGAN

+1(703) 868-9973 ⋄ Washington, D.C.
manish@virginia.edu ⋄ linkedin.com/in/manishbalamurugan ⋄ manishbalamurugan.github.io

OBJECTIVE

Software Engineer looking for internships and full-time opportunities in software engineering, product management, quantitative development, and equities research.

EDUCATION

Bachelor of Arts, Computer Science, Univeristy of Virginia 2020 - 2024

Notable Courses: *Programming and Data Representation, Algorithms, Machine Learning, Advanced Software Development, Computer Architecture, Advanced Investments: Principles of Securities Trading.*
Clubs: *Machine Learning Club, Indian Student Association, Product Management Circle*

SKILLS

Programming Languages	C++, Java, Python, JavaScript, TypeScript, R, Application Development
Tech Stacks	React, Flutter, Node.js, OpenAI, Langchain, AWS, Firebase

PROJECTS

PeerAI (https://mypeerai.com): Built a tool that allows users graphically connect LLM's, vector databases, plugins, and data loaders to create and share AI apps in 5 minutes. Used React, AWS, Node.js, MongoDB, and Langchain. Gathered 250+ early users, currently in talks with VC's including PearVC, Reach Capital, and Hustle Fund.

Hyphora (https://hyphora.org/): Social network for students. 3,000+ users at peak, with a focus on democratizing student access to educational resources. Built with React and Firebase.

EXPERIENCE

Software Development Engineer Intern Sept 2022 - Dec 2022
Amazon *Arlington, VA*

- Developed an internal tool improving test speed by 95% by automating the clean-up of failed pipeline deployments using AWS Lambda functions. Active contribution to Amazon's internal codebase utilized by external teams.
- Designed and deployed an automated pipeline for global ads deployment which improved its deployment speed by over 60% by migrating the process full over to native AWS utilizing TypeScript and AWS Lambdas.
- Migrated over regional ad deployment tests from manual testing to an automated test pipeline utilizing machine learning algorithms to automate this process via AWS SageMaker.

Software Engineer Intern Dec 2021 - Mar 2021
Keva Health *Boston, MA*

- Increased custom acquisition and engagement rates by over 50% developing a direct-to-physician to seamlessly onboard them onto Keva Health using React.js and Node.js.
- Introduced a deep learning-based approach utilizing Bidirectional Encoder Representations from Transformers (BERT) based models to accurately predict underreported adverse drug events (ADE) with an accuracy over of 90%. Built with Python and TensorFlow.

AI/ML Research Intern Oct 2018 - May 2021
The Johns Hopkins Univeristy School of Medicine *Baltimore, MD*

- Engineered a machine learning pipeline with TensorFlow and Keras that reconstructed corrupted ultrasound images with 90% accuracy. Research published listed as a first author in the Journal of Medical Devices.
- Designed and implemented a proof-of-concept neuroimaging pipeline utilizing TensorFlow and Keras to detect foreign bodies during neurosurgical procedures with over an accuracy of 70%. Developed an iOS application based off this pipeline with SwiftUI and Firebase. Research published as a first author in SPIE Medical Imaging Journal and the National Library of Medicine.

AWARDS AND ACCOLADES

- Regeneron International Science and Engineering Fair Finalist
- Grand Prize at Fairfax County Science and Engineering Fair