Vaaranan Yogalingam

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Education

University of Waterloo Sep 2020 – Apr 2025 (3rd Year)
Bachelor of Computer Science (Digital Hardware Specialization) *Waterloo, ON*
Relevant Coursework: Data Structures and Algorithms, Operating Systems, Probability and Statistics

Experience

YuJa Inc. Sep 2022 – Dec 2022
Software Developer Intern *Toronto, ON*
Technologies: Java, JavaScript, React.js, React Native, AWS (SAM, DynamoDB, Lambda, API Gateway, CloudWatch)

- Built a student engagement web app to launch polls/quizzes, and enabled students to respond in real-time
- Created Java microservices to compute and generate poll stats, demographics, question data, etc. while using AWS to correspondingly deploy scalable REST APIs to handle 200+ concurrent requests
- Spearheaded development of product mobile app, and achieved cross-platform compatibility with React Native, which reduced development time by 2 months and costs by 40%
- Utilized web sockets to enable poll host to share all questions in an exam format, and track live student progress for 300+ participants
- Developed survey poll type, enabling participants to view class responses live, updating every 2.5 seconds

The Centre for Education in Mathematics and Computing Jan 2022 – May 2022
Full Stack Developer Intern *Waterloo, ON*
Technologies: Linux, MySQL, PHP, JavaScript, jQuery/AJAX, CSS Bootstrap, AWS (Fargate, ECS, EC2), Docker, OOP

- Created and extended 5 web applications to manage, launch, and proctor online Math and CS contests
- Developed a web app to enable the customer service team to easily access 11,000+ student profiles, by expanding and diversifying search criteria, and improving search query run times by 20%
- Proposed and designed a script to convert contest questions from 1000+ LaTeX files to HTML using MathJax, which reduced manual uploading and formatting time from 3 hours per contest, to 3.5 seconds
- Reduced contest proctoring app size by 84%, by migrating application from VMs to Docker Containers, which were then hosted and deployed using AWS Fargate and ECS, leading to increased scalability

AltaML Jul 2021 – Aug 2021
Junior Machine Learning Developer Intern *Calgary, AB*
Technologies: Microsoft Azure, Python, Git/GitHub, Microsoft Office 365, Computer Vision

- Created a Computer Vision model using Azure AI, to analyze hockey game footage, tracking over 30 players
- Utilized a Python script to efficiently pre-process 3+ hours of game footage, and produced and tagged over 100 frames of data, which led to a final model with a 95% precision score

Projects

YouTube Video Comment Sentiment Analyzer (Chrome Extension)
Technologies: Angular.js, JavaScript, TypeScript, Django, Python, Natural Language Processing

- Developed a chrome extension to return the overall audience sentiment of YouTube videos by building an API to analyze the comments using the VADER model, designed for sentiment expressed in social media

Insta Recipe (Food Blogging App)
Technologies: MongoDB, Express.js, React.js, Node.js, REST API, OOP, JSON

- Developed a food blogging app with a REST API to allow users to post and read recipes, garnering 10+ posts, while using JSON Web Tokens to authenticate 20+ users