Vipin AJAYAKUMAR

Full stack web developer

PERSONAL DATA

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SUMMARY

I am a full-stack developer with ~5 years of experience and prior experience in Aerospace Engineering. My expertise spans frontend, backend, and infrastructure technologies. I derive great satisfaction in system design, crafting code, learning new technologies and solving challenging problems for my customers. I enjoy both coding and writing as a hobby - as you can see on my GitHub and blog.

I am looking for a full-stack or backend role where I can continue to learn and grow.

EXPERIENCE

JUN 2024 CURRENT

Software Development Engineer at AMAZON, London, UK

Amazon Prime Video - Sign-in experience on living room devices

Backend team improving sign-in flows across smart TVs and other living room devices.

- Improved sign-in conversion rates by enabling users to sign in via a notification on the mobile phone app, significantly reducing friction for this High Value Action. Designed and implemented a system to collect and store data at high TPS, optimising for cost and performance. Collaborated with teams such as TV, Android and iOS client teams to run experiments and deliver the new feature.
- In my spare time, I ported an open source graphing tool for internal use which is now used by thousands of Amazonians each month.

Technologies: Authentication standards, Kotlin, Fargate, Lambda, DynamoDB

DEC 2019

Amazon Prime Video - Partner tools

Jun 2024

Full-stack team developing software to help internal users and external partners collaborate and onboard new devices to Prime Video and maintain them.

- Designed an automated failure detection mechanism for downstream processes, eliminating the need for daily manual checks and reducing project delays.
- Designed task ownership and notification features, enhancing an existing workflow management system, to streamline process times. Captured requirements from other teams and designed changes to the UI, infrastructure and several microservices.
- Improved access to data for our organisation by developing an ETL application aggregating data owned by multiple teams and showing insights on QuickSight dashboards.
- Resolved high severity issues, wrote incident analysis reports, addressed security risks and supported users as the on-call.
- Led fortnightly learning sessions to share knowledge. Delivered many technical presentations myself.
- Mentored apprentices, interns and new joiners

Technologies: React, Redux, Python, TypeScript, Java, AWS: Lambda, S3, CloudWatch, DynamoDB, DocumentDB (MongoDB), RDS, SNS, SQS, EC2, IAM, Glue, QuickSight, Athena, CDK

FEB 2017 Workstream lead at ROLLS-ROYCE, Derby, UK

DEC 2019 Trent XWB-97 Aeroacoustics

Primary interface between Rolls-Royce and Airbus on all noise activities for the XWB-97 engine.

- Coordinated multiple workstreams in support of the project milestones.
- Planned and carried out engine tests at the NASA Stennis Space Center to support aircraft noise certification.
- Saved several months of repetitive work by using Python to automate test data analysis.
- Initiated monthly webcasts on Python to facilitate the sharing of knowledge globally.
- Championed the use of programming to solve Engineering problems and worked to improve the developer ecosystem at Rolls-Royce.

Technologies: Python

SEPT 2015 Graduate trainee at ROLLS-ROYCE, Derby, UK

FEB 2017 Development, Service Eng, Design & Make project, Aeroacoustics

Managed development activities and service issues. Designed a rig test to provide proof of concept for a ship tunnel thruster. Developed a noise data visualization tool using Python.

JUN 2014 Intern at ROLLS-ROYCE, Derby, UK

Aug 2014 Power Transmissions Subsystem

Obtained funding for a manufacturing cost-reduction opportunity by proving the business case.

JUN 2012 Intern at ROLLS-ROYCE, Bristol, UK

Aug 2013 Development, Thermal & Fluid Systems

Created various automated tools and wrote process improvements. Made air system assessments.

EDUCATION

2018 Part-time study in DATA SCIENCE, Aston University, UK

2015 Master of Engineering in Aerospace, University of Bath, UK

First-class honors | 2nd rank in class of ~190

Thesis: Modelling of load reduction for wings near stall

Royal Aeronautical Society (RAeS) University Prize for the best Aerospace graduate

Royal Aeronautical Society (RAeS) Centennial Scholarship

International Society of Transport Aircraft Trading Foundation Scholarship

University of Bath International Scholarship

2010 A-levels, Trivandrum International School, India

A*s in Physics, Math, Chemistry, Biology & Computing

 $Outstanding \ Cambridge \ Learner \ Awards - A-Level \ Examinations$

Highest mark in India for Physics, Chemistry, Biology & Computing

INTERESTS

iOS development, reading, blogging, personal finance, tech/financial podcasts