

Vinay Manektalla

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EXPERIENCE

Head of Audiovisual Software Engineering

Dec 2020 – Present

BMAT, TV&AV Team

Barcelona, Spain

- Promoted to Manager of the Audiovisual Engineering Department in a technical and business capacity. Functioning as Lead Developer but also developing the team's business strategy and aiding in the sales process
- Responsibilities and major products include:
 - * Leading the AV team input and development in cross-organisation projects
 - * Interview prospective candidates and review submissions for tests and exercises
 - * Guiding team developments, assigning tasks, reviewing pull requests and implementing product architecture using cloud platforms such as AWS
- Chosen by the executives to lead a cross-functional agile software development team. Designed and developed a new product for one of the key company-wide objectives, including:
 - * Engineering a product to match music metadata from various digital service providers (e.g., Apple, Spotify etc.) with client catalogues
 - * Calculating royalties by querying matched music works in proprietary databases
 - * Automating royalty claiming report generation and delivery
- Technologies used: Python, MongoDB, PostgreSQL, Elasticsearch, GraphQL, Bash, Docker, AWS, Jenkins, JIRA, Git, Debian, JavaScript, Django, RabbitMQ, Redis, Linux, CI/CD (Bitbucket Pipelines)

Software Engineer

Nov 2019 – Dec

BMAT, TV&AV Team

Barcelona, Spain

- Design, develop and maintain backend microservices, database systems and other client-driven products for music identification and tracking on TVs and Audiovisual productions
- Responsibilities and major products include:
 - * Spearheaded the greenfield development on a new application which consolidates data from record labels, production companies, broadcasters, CMOs and various other television and music industry players to a single source of information in order to streamline AV production rights claiming
 - * Develop and maintain a natural language processing tool used to match AV works metadata to electronic programming guide metadata or post transmission logs, including 3rd Party API integration, to enrich and track AV production usage
 - * Build systems that monitor the use of audiovisual (AV) productions on TV channels
 - * Performed independent research on the effects of COVID-19 on the television and music industry
 - * Automation of cue sheet generation for music works reporting in audiovisual productions
- Technologies used: Python, MongoDB, PostgreSQL, Elasticsearch, GraphQL, Bash, Docker, AWS, Jenkins, JIRA, Git, Debian, Linux, JavaScript

Software Engineer - Associate

March 2017 – Nov 2019

Deutsche Bank, Equities Electronic Trading

London, UK

- Following completion of the graduate programme, converted the second of two rotations into a full-time role
- Working closely with business and technology teams to deliver major business features, technology improvements and on-going maintenance while keeping the overall technology stack stable and providing trading hours support for issues
- Maintaining and further development of execution algorithms
- Spearheading major projects such as:
 - * The rewrite of the passive allocation model of the Smart Order Router
 - * Creating a market data monitoring analytic which was integrated to an external GUI to aid support teams in having a snapshot of the health of incoming data into the system
 - * Rewrite of the ETL process leveraging external Python libraries, such as cx_Oracle, and, as a result, designing and implementing the associated tabular database schemas and structures
 - * The productionisation of the next generation Smart Order Router including coding the aggressive allocation and synchronized arrival logic and various others
 - * Feature development of various requests from the business in full-day scheduling algorithms
 - * Conducting technical interviews for prospective candidates via phone and in-person for roles within the team

- Technologies used: C++, Boost, GoogleTest, CMake, Python, Bash, Shell, Awk, SQL, CI Tools (Jenkins, TeamCity), JIRA, Git, RedHat, Solaris, SuSE, Oracle

Technology Analyst

Jul 2016 – March 2017

Deutsche Bank, Global Branches Production Management

London, UK

- Working in a Group Technology Production and Infrastructure team across Non-Retail Branches globally, encompassing 40+ countries
- Improving reporting with a business intelligence application and scheduling various daily and weekly reports
- Developing a VBA application with management information on all applications in the branches network, used as the terms of reference for the Application Production Services sub-team
- Technologies used: VBA and BI Tools

Associate

Oct 2015 – Feb 2016

Deloitte, Capial Markets Audit

London, UK

- Joined as a temporary associate onto a project investigating the mis-selling of interest rate derivatives to small and medium-sized businesses in the UK and reviewing the proposed redress to these customers

Web Development Intern

Jul 2014 – Sept 2014

KwickScreen

London, UK

- Developed and launched the new KwickScreen website, employing SEO and web marketing techniques to increase site traffic and sales leads, accessible at:
<https://kwickscreen.com/>
- Technologies used: SquareSpace, HTML, CSS

Founder

Sept 2012 – Feb 2016

Voices

London, UK

- Founded and developed my own company. Primarily starting out as a music journalism website, the company eventually became a club night promoter successfully running nights in Manchester, Leeds and London with a large following on the Facebook social media platform, accessible at:
<https://www.facebook.com/voicesvoxuk/>

EDUCATION

University of Warwick

Coventry, UK

MEng (Hons) Systems Engineering with Business Management (School of Engineering) Oct 2011 – Jun 2015

- First Class Honours
- Masters modules include: Automobile Systems, Dynamics & Control (79%), Supply Chain Management (78%), Simulation of Operations (76%), Group Research Project (Individual Mark - 74%) and others

UNIVERSITY PROJECTS

School of Engineering, University of Warwick | *Research Engineer*

Oct 2014 – Jun 2015

- Sponsored group research project assessing the feasibility of nanofluid cooling oil within the application of power transformers (specific information withheld by a non-disclosure agreement)

Warwick Audio Technologies & University of Warwick | *Research & Prototype Engineer* Oct 2013 – Jun 2014

- Individual research project developing flat (<1mm) and flexible electrostatic loudspeaker technology within a point-of-sale advertising application in order to provide a new platform for consumer communication

TECHNICAL SKILLS

Languages: Python, C/C++, C#, JavaScript, HTML/CSS, Solidity, Bash, Unix, Awk, Sed, MatLab

Databases: PostgreSQL, Oracle, MongoDB, ElasticSearch

Frameworks: React, Node.js, Flask, Django, FastAPI, GraphQL, GoogleTest, Celery

Developer Tools: Git, Bitbucket, JIRA, Docker, Jenkins, TeamCity, AWS, VS Code, PyCharm, Eclipse, CLion, CMake, Linux