

# AAKASH SHAH

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## ABOUT ME

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An engineer by heart and a developer by passion. A learning enthusiast. A self-motivated individual who works with a focused approach, adaptable to the new trends of computing and zealous to continuously work better

- ❖ 6+ years of professional experience with software development.
- ❖ Strong skills to develop tools that allow users to make informed decisions.
- ❖ Fundamental understanding of programming techniques.
- ❖ Experience in product development, design thinking and strategic planning.
- ❖ Skilled in liaising between data scientists and software developers to facilitate seamless collaboration.
- ❖ Excellent ability to learn and adopt new technologies.
- ❖ Passionate to solve business problems.
- ❖ Eager to contribute to the education industry.
- ❖ Strong communication and presentation skills
- ❖ Stack Overflow: [Link](#)

## TECHNICAL SKILLS

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- ❖ **Languages:** Proficient: Python3, JS/TS, YAML  
Prior Experience: Scala, Java (J2EE), C++, R
- ❖ **Machine Learning:** Keras, TF, Sklearn, NLTK, Core NLP
- ❖ **Server-side Dev:** Flask, FastAPI, Node.js
- ❖ **Frontend Dev:** ReactJS
- ❖ **Databases:** PostgreSQL, Oracle, MongoDB
- ❖ **Business Analytics:** Spark, Excel and PowerBI, Google Sheets, App Script
- ❖ **Operating Systems:** CentOS, Ubuntu, OS X
- ❖ **Cloud technologies:** AWS Lambda, S3, API Gateway, Cloudformation, CloudWatch, EC2, VPC, Amazon OpenSearch, Route 53, Cognito, SQS, SNS, AWS CDK, EKS, Serverless Framework
- ❖ **Software Engineering:** OO Design Patterns, SOLID Principles, Git, Agile, TDD, Pair programming, HTTP/RESTful APIs
- ❖ **Other Skills:** Kubernetes, Docker, ElasticSearch, CDSW, Nginx, Wireshark, Airflow/Prefect, Lucidchart

## CURRENT WORK EXPERIENCE

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**IQVIA**, Manager, AI Software Development

Jan 2022 - present

*Responsible for driving technical and strategic engineering management initiatives.*

- **People Leadership:** Autonomous responsibilities to directly manage a mix of engineers ranging from junior to senior levels. Promoting engineers for career development and helping them accomplish their annual goals.
- **Technical Initiatives:** Reviewing platform architecture, designing platform tools and frameworks such as MLOps feature store for developer and data scientist experience, automating sandbox and staging environments, improving continuous delivery and integration.
- **Strategic Initiatives:** Driving business-aligned initiatives like onboarding experience, associate engineers program (for engineers with non-traditional software development background) and contributing to improve consistent technical approaches across squads which reduced attrition rate by 10%.
- **Development:** Continuing software development and code reviews for python and react applications. Providing subject matter expertise on financial databases. Maintaining production environments and providing technical and product support for business stakeholders.
- **Squad Engineering Manager:** Developing and designing new initiatives targeted to analyze clinical trial design and deriving patient and site burden. The tool is aimed to increase time saving and raise 1.5M in revenue in 12 months.

## PREVIOUS WORK EXPERIENCE

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### IQVIA, Sr. Software Engineer

May 2021 - Dec 2021

*Assumed a tech lead role for IQVIA's internal finance application.*

- **Development:** Developed full stack applications (Flask & React-Redux) along with system design, UX design and shadowing business users to align the product to suit the needs of our users.
- **Team Leadership** - Leading a team of 6 members to build an internal facing financial application that forecasts core expenses and provides financial oversight of IQVIA hosted clinical studies; decreased dependency on FTEs by ~90% by reducing the need to manually forecast project expenses.
- **Data Science:** Partook in data driven & statistical model designing and constraining the model with business requirements. Took initiative to break the siloed black box modeling strategy and added explainability modules to our system forecasts. Submitted model architecture designs that can run scenarios, simulations and provide metadata KPIs
- **MLOps Advocate:** Advocating, prototyping and engaging in talks with vendors and data scientists to set up a dedicated MLOps playground with GPUs for developers and data scientists to streamline model lifecycle (development to deployment).

### IQVIA, Software Engineer 2

Mar 2019 - May 2021

*Part of the analytics team responsible for optimizing costs of clinical trials using machine learning.*

- **Development:** Involved in developing full stack application with Flask & React and writing code for deriving data driven model's accuracy and other key performance indicators.
- **Platform Owner:** Responsible for managing the K8s cluster and CI/CD pipelines, database integration and migration, writing JIRA stories, Datadog monitoring.
- **COVID19 Recovery Prediction:** Owned the entire development and database administration of a spotfire dashboard using SIR (epidemiological) model to derive the recovery curve of clinical trial sites. The curve was used in estimating cash flow, budgeting and planning subject visit schedules.

### KORE.AI, Solutions Engineer

Dec 2018 - Mar 2019

*Part of the chatbot development team at Kore along with handling solutions for a variety of clients.*

- **Client Interaction:** Presented detailed walkthrough of chatbot development toolkit and the chatbot solution to tech giants like eBay and Box Inc in the bay area.
- **Chatbot Development:** Developed Kore.ai's corporate assistant chatbot called [kora.ai](#) using Javascript and Chatscript. Added routines for scheduling meetings, improved intent recognition and optimized user interaction by two folds.
- **Hubspot Automation:** Managed the startups hubspot deals and derived insights like sales funnel, successful conversions using HubSpot API and Google App Scripts on Google Sheets.

### INTERNATIONAL FINANCE CORPORATION (World Bank Group), Python Developer

Aug 2018 - Dec 2018

*The Corporate IT Service Quality (CITSQ) team at IFC assures high-quality software for creating global economies.*

- **Process Improvement:** Developed a python tool (using pandas, matplotlib, excelengine, tkinter) to automate the testing infrastructure for the CITSQ team. The tool also includes QA reporting and analytics; which eliminates the need to maintain multiple scripts and excel files; reduced task completion time by 60%.

### JOHN HOPKINS UNIVERSITY CTY (CENTER FOR TALENTED YOUTH), Robotics Instructor

Jul 2018 – Aug 2018

*Tutored Robotics with Lego Mindstorms Mechatronics and fundamentals of physics and computer science.*

- **Robotics Instructor:** Taught Java based Mindsotrm software for programming sophisticated robots. Proactively conveyed basics of physics and computer science to talented kids from age 8-12.

**GWU MARKETING DEPARTMENT**, Graduate Teaching Assistant

Jan 2018 – May 2018

*Responsible for assisting undergraduate students in their academic pursuits.*

- **Graduate Assistantship:** Evaluating students' performance and planning course curriculum in the areas of marketing strategy and international marketing. Course : MKTG 4159. Marketing Strategy.

**TIC SUMMER CAMP**, Programming Counselor

Jul 2017 – Aug 2017

*Tutored Functional Programming Language to kids from age 6 - 16.*

- **Programming Counselor:** Helped to develop games and tutorials for Microworlds EX which is based on LISP.

**GWU PSYCHOLOGY DEPARTMENT**, Research Assistant

May 2017 – Dec 2017

*Researched and developed a tool from a legacy MATLAB version to a Javascript version.*

- **Technology Development:** Developed a psychometric (2AFC) test using React JS which is available on Amazon Mechanical Turk and redesigned Quest (MATLAB tool and a part of Psychtoolbox) in JS.
- **Infrastructure Deployment:** Elastic load balancing for AWS.

**GWU ATHLETICS CENTER**, Computer Science Tutor

Sep 2016 – Dec 2017

*Taught fundamental principles of algorithms and data structures to undergraduates*

- **Computer Science Tutor:** Explain key concepts of algorithms, data structures etc. to undergraduate students. Assisted with assignments in regular hours and taught problem solving before exams.

**ENCIRCLE.IO**, Software Developer

Aug 2015 – May 2016

*A SaaS IoT infrastructure built in Java to enhance the retail experience by tapping potential window shoppers w/ Bluetooth beacons*

- **Innovation:** Contributed production level java code for building location features using Spring Boot and customized Wi-Fi routers for check-in via a social network with OpenWRT; reduced bottlenecks; increased customer outreach by 30%

**UNISYS CORP.**, Software Architect Intern

Jan 2015 – Jun 2015

*Unisys provides technology and security services to the US government and offers tools for parental control of online activities.*

- **Process Improvement:** Contributed to the revamping of the existing platform – Unisys Secure Family Net(USFN). Worked with NoSQL database: MongoDB and used RoboMongo for visualizing.

**PIXELLETE**, Head of Operations

Apr 2013 – Dec 2014

*A college incubated and supported profit organization that engaged in software development for local clients.*

- **Software Development** Led a team of 5 developers and designers in the university based incubation center.

**EDUCATION**

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**The George Washington University (GWU)**, Computer Science - Machine Learning

Washington DC, USA

*Master of Science (GPA: 3.5)*

Aug 2016 – May 2018

- **Relevant Courses:** Big data & analytics • Advanced software paradigms • Design and analysis of algorithms • Linear Algebra for ML • Probability for ML • Natural Language Processing with IBM Watson
- **Accomplishments:** International student ambassador • Global tuition fellowship • Research assistant (Psychology Department) • Computer Science tutor (Undergrad Athletes) • Teaching assistant (School of Business)

**SRM University**, Computer Science & Engineering

Chennai, India

*Bachelor of Technology (GPA: 3.3)*

Aug 2011 – Jun 2015

- **Relevant Courses:** Databases • Android Studio • Software design • Computer Architecture • Computer security
- **Accomplishments:** Co-convenor quiz club • Led a team of 5 developers and designers at a college incubated startup.

## AWARDS & ACHIEVEMENT

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- **IQVIA High Performance Culture Impact Award:** Silver (2021)
- **Devfest DC Google Cloud Hackathon:** Winner (2018)
- **Fellowships:** Global InitiativesTuition Fellowship (2016-2018) | Graduate Assistantship (2018)
- **Student Ambassador:** Intl' Service Org., GWU. (2016)
- **SESCON Hackathon:** Winner (2014)
- **Blitz Chess:** Winner (2013)
- **National Cyber Olympiad:** All India Rank 57 (2010)
- **All India Astronomy Olympiad:** Top 1% in State (2010)