

# Maheep Mahat

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## SUMMARY

Full Stack Engineer with 3 years of experience in building end-to-end applications utilizing microservices architecture, Django MVC, and Spring Boot; demonstrated expertise in optimizing data processing, enhancing data retrieval, and refining user interfaces.

## SKILLS

**Languages:** Python3, Java9, JavaScript, TypeScript, C, C++, C#, PHP, SQL, HTML5, CSS3

**Frameworks & Libraries:** Django, Spring MVC, Spring Boot, React, Angular, Node.js, D3.js, Express.js, jQuery, Pandas

**Databases and tools:** PostgreSQL, MongoDB, MySQL, H2, AWS, Kubernetes, Jenkins, Figma, Git, Maven, Docker.

## PROFESSIONAL EXPERIENCE

**Virginia Tech** - Graduate Research Assistant, Full Stack

***Jan 2022 - Present***

- Developed an information dashboard web app for Virginia State Police with Django, React.js, PostgreSQL, and Leaflet, to visualize accident and speeding incidents, reducing lookup time by 30 seconds.
- Improved data retrieval speed by 50% for Virginia State Police's INRIX traffic speed data using in-memory processing, denormalization, data aggregation, and data cubes; Reduced user wait time by 5 seconds.
- Created a Cron expression generator for the Virginia State Police dashboard app, enhancing data precision and leading to a 30% improvement in incident response times due to more informed decisions.
- Doubled data ingestion speed for Urban Affairs & Planning department's bicycle experiment, reducing from 6 to 3 hours using pruning, partitioning, and Tuplex, improving workflow efficiency.

**Mediaocean** - Associate Software Engineer, Full Stack

***July 2020 - Aug 2021***

- Implemented a 2-step authentication via Email or Text OTP on Mediaocean's Prisma and Radia platform, slashing the document verification process by 40%, leading to expedited document approval time for clients.
- Employed cache optimization and indexing on Mediaocean's Prisma platform, significantly enhancing PDF document processing efficiency and expediting final document generation by 15%.
- Achieved a 10% reduction in deployment time by introducing automation in production releases and refining puppet modules, leading to better resource utilization and smoother operations.
- Spearheaded Server and UI development for Prisma and Radia using Java 9, Spring Boot, and React.js, boosting client engagement and satisfaction and regularly conducting Root Cause Analysis to enhance product reliability.

**Siemens Industry Software** - Software Engineering Intern

***May 2019 - July 2019***

- Built a self-generating connector prototype for in-house microservices in the Siemens local network.

## EDUCATION

**Master of Science in Computer Science** (GPA: 3.85/4)

***Jan 2022 - Present***

Virginia Tech, VA, United States of America

**B Tech. Computer Engineering** (GPA: 9.2/10)

***Aug 2016 - June 2020***

Vishwakarma Institute of Technology, Pune, India

## RECENT ACHIEVEMENTS

- Awarded full scholarship of over \$113,000 (including monthly stipend) for graduate program at Virginia Tech.
- Honored with the Mediaocean Rising Star award recognizing outstanding performance and contributions.
- Received Student Achievement Award (2020) from CS Dept. at Vishwakarma Institute of Technology.

## RECENT PROJECTS

**Emotion In Motion Project:** Created the first and only platform for the largest psychophysiological dataset by using Coordinated Multiple Views to do temporal pattern analysis using Hidden Markov Model and Dynamic Time Warping.

**E-Voting System Using Blockchain:** Developed a prototype voting application using blockchain technology to improve over existing methods.

## RESEARCH & PUBLICATIONS

- Detecting Cyber bullying across multiple social media platforms using Deep Learning (2021) ([IEEE](#))
- Prediction and Prevention of Addiction to Social Media Using Machine Learning. (2021) ([Springer](#))
- Reconstructing obfuscated human faces using conditional adversarial Network. (2020) ([Springer](#))