# SREEKANTH VINODKUMAR

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## SUMMARY OF QUALIFICATIONS

- Over 2 years of work experience in software and web development
- Proficient in implementing best practices for code optimization and performance tuning, contributing to seamless and efficient software design and development
- Proven team player with the ability to collaborate effectively in cross-functional teams to drive project success
- Strong analytical, interpersonal, and problem-solving abilities honed through collaborative work with project teams, colleagues, and clients, fostering effective collaboration and successful project outcomes

## TECHNICAL SKILLS

- **Programming Languages and Frameworks:** Java, JavaScript, CSS, Bootstrap, C, C++, Python, React, Next.js, Redux, Node.js, Dart, Flutter, Shell Script, SQL, TypeScript
- **Database Systems:** MongoDB, MySQL, Firebase, DynamoDB
- **Markup Languages:** HTML, XML
- **Operating Systems:** Linux, OS X, UNIX, Windows
- **Machine Learning:** NumPy, Scikit-Learn, Pandas, Matplotlib, Tensorflow
- **Methodologies:** Software development lifecycle (Agile, Waterfall, Iterative, Scrum)
- **Tools:** Microsoft Office, Microsoft Word, Microsoft Powerpoint, Microsoft Visual Studio, Docker, Pycharm, Android Studio, Eclipse, Visual Studio Code (VS Code), Figma
- **Cloud Computing:** AWS, AWS Lambda, AWS S3 bucket, AWS EC2 instance
- **Project Management Tools:** Git, GitHub, GitLab, Jira, Asana, Trello

## EDUCATION

**Master of Applied Computing** Sep 2022 – Present
University of Windsor, Windsor, Ontario

**Bachelor of Technology, Computer Science** Aug 2016 – July 2020
APJ Abdul Kalam Technological University, Kerala, India

## WORK EXPERIENCE

**Research Assistant Software Developer** May 2023 – Present
University of Windsor, Windsor, Ontario
**Technology: React, Node.js, HTML, CSS, MongoDB**

- Enhancing an information management system for Windsor Essex Community Compassion Care
- Leveraged Node.js, Express, React and MongoDB to develop new features and bug fixing
- Design, develop and test custom REST APIs to improve reliability
- Collaborated with the Director of the project in gathering user requirements and feedback
- Revamped legacy class component codebase, transitioning to React functional components with hooks, resulting in a 30% improvement in development efficiency
- Implemented report generation and PDF conversion functionality to enhance data visualization capabilities
- Demonstrated expertise in problem solving and troubleshooting by successfully implementing new features, delivering high-quality code, and fixing complex bugs/defects to ensure application stability

**Software Engineer** Nov 2021 – July 2022

QBurst Technologies, Kochi, India

**Technology: React, Node.js, HTML, CSS, MongoDB, Python**

- Developed and deployed 2 sophisticated MVC web applications with advanced functionalities and intricate architectural design
- Led a development team of 3 members for one project and actively took part in client calls and code reviews
- Innovated and implemented new functionalities, seamlessly integrating databases and generating comprehensive reports
- Published 2 npm packages, contributing to the open-source community
- Developed strong written and verbal communication skills by actively engaging in client communications and proficiently creating documentation
- Leveraged JavaScript's extensive ecosystem and continuously explored new frameworks and tools with a curious mindset
- Successfully implemented CI/CD pipelines, reducing software build and deployment time by 10% and ensuring faster time to market
- Used Agile methodology to break down tasks into smaller sprints for more manageable development

**Software Developer** May 2020 – Nov 2021

Riafy Technologies, Kochi, India

**Technology: React, Node.js, HTML, CSS, MongoDB, Natural Language Processing**

- Developed and deployed five web applications using React, Node.js, HTML, and CSS, each achieving an average user engagement increase of 25% and receiving positive feedback from users
- Analyzed both business and technical requirements with respective teams
- Maintained regular communication with teams on project progress
- Streamlined debugging time by refactoring code using object-oriented design principles, improving code and reducing error rates
- Developed a resume parser application utilizing NLP (Natural Language Processing) techniques
- Proficient in both independent and collaborative work, with the ability to excel in individual tasks as well as contribute effectively within a team
- Setup and maintained DevOps pipelines using Git for streamlined software development and version control
- Extensive hands-on experience with AWS Lambda, leveraging its serverless capabilities for efficient and scalable application development

## PROJECTS

**Heyrides** Oct 2023 - Nov 2023

External Project

**Technology: React, Node.js, HTML, CSS, MongoDB, AWS**

https://www.heyrides.ca

- Developed a responsive and user-friendly frontend using React.js, complemented by a secure and scalable backend infrastructure with Node.js and MongoDB for effective data management and storage in the Heyrides platform
- Implemented email triggering functionality from the backend using Nodemailer
- Orchestrated the deployment of both the frontend and backend components on an EC2 instance, effectively hosting and managing the application's resources in the AWS cloud environment
- Established a seamless connection between the application and its domain (heyrides.ca) by leveraging Route 53 for domain registration and management
- Implemented Nginx as a reverse proxy to efficiently redirect incoming requests to the locally running backend, optimizing the overall performance and responsiveness of the Heyrides platform
- Enhanced security measures by creating and configuring an SSL certificate from AWS Certificate Manager, ensuring secure data transmission, and seamlessly integrated it with CloudFront for improved content delivery

**Mini-terminal** Apr 2023 - May 2023

University of Windsor, Windsor, Ontario

**Technology: C, Socket, TCP/IP, Unix**

https://github.com/S-r-e-e-V/C_Socket_Programming

- Designed and implemented robust client-server connections using the TCP protocol
- Implemented load balancing techniques to distribute network traffic effectively between primary servers and mirrored instances
- Handled client-side requests, processed them on the server side to deliver requested data and files, and adeptly implementing secure, scalable solutions to cater to diverse client needs

**File backups in the system** Apr 2023

University of Windsor, Windsor, Ontario

**Technology: Shell Script, Unix**

https://github.com/S-r-e-e-V/System-files-backup

- Proficiently designed and implemented a robust Shell script for automated system file backups
- Developed a comprehensive backup solution that performed complete backups of all system files every 10 minutes, ensuring data integrity and reliability
- Skillfully incorporated incremental backup functionality to efficiently store only newly created files, optimizing storage usage and backup speed
- Successfully integrated optional backup features, enabling selective backups of specific file extensions (e.g., .txt, .pdf, .c, .html) as per user requirements

**NoSQL Injection detection in MongoDB using Machine Learning** Jan 2023 - Apr 2023

University of Windsor, Windsor, Ontario

**Technology: Python, Numpy, Scikit-Learn, Pandas, Matplotlib, Collab**

- Conducted research to determine the most effective Machine Learning method for detecting injection attacks on MongoDB databases using the NoSQL injection dataset
- Comparison of performance of Logistic Regression, Decision Tree, Support Vector Machines, Naive Bayes, Gradient Boosting and Random Forest classifiers was done based on F1_Score, Recall, Precision and Accuracy, resulting in Random Forest being the best ML classifier for NoSQL injection detection in MongoDB

**Impact of People's Emotion on the crypto market** Jan 2023 - Mar 2023

University of Windsor, Windsor, Ontario

**Technology: Python**

- Conducted in-depth analysis of a Twitter dataset related to the Russian-Ukraine War period, obtained from Kaggle, to gain valuable insights into public sentiments and reactions.
- Implemented advanced data cleaning techniques to enhance the accuracy and reliability of the Twitter dataset, ensuring its suitability for further analyses
- Leveraged TextBlob, a powerful natural language processing tool, to perform sentiment analysis on the tweets, enabling the assessment of emotions expressed by users during the conflict
- Developed visually compelling data visualizations to depict the variations in cryptocurrency trends in response to people's emotions during the Russian-Ukraine War

**Diary Application** Nov 2022 - Dec 2022

Personal Project

**Technology: React, Node.js, CSS, HTML, MongoDB**

https://diary-website.netlify.app

- Developed a cutting-edge text editor using React JS, integrating visually appealing themes and a dark mode feature for an enhanced user experience
- Strengthened application security by implementing JWT token authentication to safeguard user data and prevent unauthorized access

- Ensured top-level data protection through the implementation of robust password encryption techniques for secure storage of sensitive information in the database

**Logistics Application** Aug 2021 - Dec 2021

External Project

**Technology: Javascript, React, CSS, HTML, MongoDB**

- Developed an application to efficiently manage logistics transportation between locations, ensuring seamless delivery of goods
- Implemented an integrated Google Maps feature, enabling real-time tracking of vehicles and providing users with the ability to monitor their items' status
- Generated comprehensive transaction details reports for each travel, enhancing data visibility and aiding in decision-making
- Leveraged Firebase push notifications to deliver timely updates to users, enhancing communication and providing up-to-date information on logistic goods
- Successfully implemented multi-language functionality and right-to-left (RTL) support, improving accessibility for diverse user bases
- Utilized service workers to enable notifications even when the website is inactive, enhancing user engagement and convenience

**Sales Dashboard** May 2020

Personal Project

**Technology: MS Excel, VBA, SQL**

- The goal of this project is to create a dashboard in MS Excel that will enable the management team to track sales performance across different regions
- The collected data from different sources such as sales reports, and customer data extracted into a SQL database for easy querying
- Cleaned and analyzed data using SQL queries to generate insights such as sales performance by region
- Created a dashboard with MS Excel and VBA including charts, tables and graphs

**Speech-Text Converter Android App** March 2020 - April 2020

Personal Project

**Technology: Java, Android studio**

https://play.google.com/store/apps/details?id=com.speech.voice_text

- Proficiently utilized Android's built-in Text-to-Speech (TTS) engine to deliver seamless and interactive speech capabilities, enhancing user experience and accessibility
- Successfully integrated text-to-speech and speech recognition functionalities into diverse communication channels, including SMS, Email, and cross-application copying, empowering users to effortlessly communicate and interact with the app's content
- Proven ability to work independently and proactively, delivering results on time and exceeding project goals and expectations

**Working Model of Self-driving Vehicle** Jan 2020 - May 2020

APJ Abdul Kalam Technological University, Kerala, India

**Technology: Python, Java, Tensor flow (Machine Learning), RPi, Arduino**

- Proficiently designed and implemented a cutting-edge self-driving vehicle system, incorporating convolutional neural network (CNN) and shortest path algorithm to ensure safe and efficient navigation between destinations
- Successfully integrated Internet of Things (IoT) devices, including Raspberry Pi (RPI), to seamlessly control vehicle direction based on the robustly trained model, enhancing real-time decision-making capabilities
- Facilitated seamless integration of multiple systems by establishing TCP connections, fostering efficient communication and collaboration between interconnected components, thereby enhancing overall system performance

**Life Source - Blood Bank Management System** Aug 2018 - Dec 2018

APJ Abdul Kalam Technological University, Kerala, India

**Technology: Java, Android studio, HTML, CSS, Bootstrap**

- Recognized for outstanding contribution to the field of healthcare technology by developing an innovative blood bank management system called "Life Source"
- Successfully integrated live location services into Android devices, enabling precise tracking and instant identification of nearby blood donors for hospitals in need
- Spearheaded the development of a cutting-edge blood bank management system, streamlining the donor network and enhancing response times during critical situations

## PUBLICATIONS

**Self-Driving Car using Convolutional Neural Network** 2020

- https://www.ijraset.com/fileserve.php?FID=27515
  Published in International Journal for Research in Applied Science and Engineering Technology (IJRASET) Volume 8, Issue IV, April 2020