Do you have any relevant work experience? Yes.

Please indicate below the number of years of work experience you have that involved the use of quantitative skills, such as the application of mathematical or statistical methods. More than 5 years.

Type of relevant work experience (please select all that apply).

Analyst

Database Administrator

Not Engineering Management

Project Manager

Researcher

Software Developer

Not Statistician

Teacher

Other: Between June 2021 and August 2021, I served as a Data-Science Intern with Elder Research.

Please list one or two projects that you would like to bring to our attention that you have directly contributed to and learned from. These may be academic, professional, work-experience, non-academic, or for personal enrichment (e.g. volunteering).

Work-Experience

3 months

I architected and co-developed a web application for Elder Research and the National Reconnaissance Office for detecting anomalous computer usage. I employed a server and architected a database; used Python, SQL, and R; and leveraged graphical, statistical, clustering, neural-network, and isolation-forest models.

I loved working next to a fellow software developer; exchanging understandings, ideas, and reviews; experimenting together with software repositories; and performing a presentation on our full-stack, multifaceted application. I loved working in a comfortable office of brilliant, kind data scientists with whom I could connect through shared interests and dispositions. I enjoyed experiencing tech talks and research into Data-Science trends and applications in modeling complex systems. Data-Science is the right field for me; I see myself applying my learning and Master’s degree to excelling in a team of data scientists and software engineers; understanding clients’ needs, data, and modeling tools; to providing pioneering, practical intelligence.

Work-Experience

10 months

For Blue Ridge Software Solutions, I co-develop an Application Programming Interface for developing web applications, and develop a music-literacy application and a domestic appliance employing computer vision.

I thrive in a friendly, collaborative, formal, exacting, detail-oriented environment of iterative design, implementation, and review. I have enjoyed day-long design sessions and marathons of coding. I have learned to think in terms of rigorous and consistent requirements, designs, specifications, and conceptual items independent of implementation. I have habituated to focusing at one level of abstraction and on one task at a time. I have practiced speaking consistently, precisely, clearly, and simply. I have managed software engineering processes and produced professional design, development, and review documentation. I have committed to engineering useful, marketable solutions and have contributed to an engineering paradigm that my supervisor has presented to a company for which he works as a senior software engineer.

Describe any coding experience you have, formal or informal.

I work as a Junior Software Developer. I have significant experience with Python, R, SQL, Java, C#, C++, TypeScript, and other languages, and with software engineering and object-oriented development. I have taken three courses in Java.

If applicable, please list your GitHub profile below. (OPTIONAL)

https://github.com/tslever

If applicable, please list your LinkedIn address below. (OPTIONAL)

https://www.linkedin.com/in/tom-lever-12820541/

The Statement of Purpose should describe your reasons for applying to the MS in Data Science program at the University of Virginia, your preparation for this field of study, study and research academic interests, 5 year future career plans, and other aspects of your background and interests which may aid the admissions committee in evaluating your aptitude and motivation for graduate study. Your commitment to a selected field of study is assumed; we want you to discuss some of the problems and issues that particularly engage your mind. Please limit your submission to 500 words, and include the word count at the end of your statement.

You may also include an additional 200 word addendum at the end of your statement that addresses any negative aspects of your application you would like to clarify.

In addition to your statement, please answer the short supplementary questions below.

What does Data Science mean to you? (Please limit your answer to 3 sentences.)

I am drawn to studying Data Science because I want to use my acquired knowledge to collaborate as part of a community of intelligent, caring, world-oriented individuals and to improve the accuracy and efficiency of computer vision; the reliability of computer vision in scientific and health applications; and public understanding of neural-network architecture and implementation. I have a talent for understanding the vision, goals, and requirements of clients and data scientists and ensuring clear, consistent, and direct solutions; developing and applying rigorous, sophisticated, understandable models to represent or identify patterns in data and serve as robust engines to client applications; and producing high-quality, impressive reports, papers, software, and documentation. I am excited about mastering efficiently exploring, selecting, organizing, and manipulating data and evaluating the validity and efficacy of models.

Please select the top 3 areas of interest that inspire you. Order of choice will not be considered as ranked.

Engineering

Natural Science

Social Science

Please select the top 2 areas of Data Science that most interest you. Order of choice will not be considered as ranked.

Machine Learning and Analytics

Data Integration and Engineering

Please list your top three reasons for applying to the MS in Data Science at the University of Virginia. (Please limit your answer to 3 sentences.)

I am motivated to advance my career by earning a Master's degree in Data Science as my academic and research experience would provide me the credentials and experience necessary to serve a company and team by exploring, organizing, and utilizing large datasets using multidimensional mathematical techniques; understanding the workings of and appropriateness to various use cases of cutting-edge models; and leading research into new applications and methods. Studying Data Science at the University of Virginia would allow me to collaborate with fellow students, faculty, and Data-Science professionals in my five-year home of Charlottesville, and to be a contributing part of central Virginia's Data-Science community. Supporting the research of Dr. Bill Basener would allow me to become an expert in working with machine learning, signal processing, and image processing.

Have you previously applied for graduate admission to the School of Data Science? No.

Have you previously applied or are you applying to other University of Virginia programs? No.

What other graduate schools are you applying to this year? -----.

Are you a current UVA undergraduate student, or have you graduated from UVA within the last four (4) years? No.

Do you wish to be considered for the SDS sponsored need-based fellowship? Yes.

Have you completed your FAFSA form? Yes.

How did you find out about the UVA School of Data Science? Select all that apply. Web Search.

Have you taken the following prerequisite courses?

Single Variable Calculus; Linear Algebra, Introductory Statistics, and Introductory Programming: Yes.

Did you complete this course online? No.

Please indicate the title of the course.

Calculus I; Linear Algebra, Statistics I, Computer Science I, Computer Science II

Please indicate the name of the school/service that offered the course.

North Penn High School; Piedmont Virginia Community College.

Grade Earned: A.

What term did you take this course? pre-2013 (2006 – 2007); Spring 2021, Spring 2021, Summer 2021, Summer 2021.

Recommendations

Please provide two references who can comment on your qualifications for the program to which you are applying\*. The letters should come from individuals, especially professors who are sufficiently familiar with your work to make a comprehensive evaluation of your abilities.

Once your recommendation provider's information is entered and the notification is sent, your recommendation provider will receive an email with instructions on how to proceed with the online recommendation form.

You may send your recommendation provider a reminder email by clicking on their name and using the "Send Reminder" button found at the bottom of the recommendation provider's contact information page.

Once you complete your application, you do not need to wait for your letters of recommendation to be received in order to submit it. Your recommendations will be matched to your application upon submission.

Dilbeck, Chris: Submitted on August 15.

Kurtz, Brianna: In progress as of August 28.

Liskey, Irina: Sent to recommender on September 18.

Staples, Chip: Sent to recommender on August 14.

In place of your signature, please type your full legal name:

Thomas Scott Lever III