## FORDHAM UNIVERSITY

Lawrence M. Wolk, M.S.E.E.
Professor, Computer and Information Sciences
Software Applications Developer for University Network
Computer Graphics and Imaging Specialist
Fordham College of Professional and Continuing Studies

# **EXPERT OPINION LETTER**Analysis of Positional Requirements

Position: Applications Consultant 2

Employer: Capgemini America, Inc.

Candidate: Ravi Teja VOLETI

Degree Requirement: Bachelor's Degree in Computer Science, Computer

Engineering, Computer Management, Computer Information Systems, Management Information

Systems, Information Technology, Electrical Engineering, Electronics

Engineering, or a related specialized field

I am providing this expert opinion letter to discuss the nature of the position of Applications Consultant 2 offered to Ravi Teja Voleti by Capgemini America, Inc. (hereinafter, the "Company" or "Cappemini"). The Company, a leading provider of information technology services, seeks to hire Mr. Voleti in a temporary position in which he would be working as an Applications Consultant 2, handling complex and highly specialized job duties in the areas of big data integration, cloud migration architecture, portal design, cloudbased data warehouse applications and solutions, infrastructure integration, and cloud support and troubleshooting. As discussed herein, the subject position is a highly technical, specialized position in the area of cloud computing technologies that could not possibly be performed without the prior attainment of at least a bachelor's degree in Computer Science, Computer Systems, Engineering, Computer Management, Computer Information Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field.

My opinion herein is based on my review of extensive documentation pertaining to the position of Applications Consultant 2 with Capgemini and the academic credentials of Mr. Voleti. The documentation includes copies of a

letter from Capgemini outlining the job duties of the position and the required educational background for a candidate to hold the position, a supplemental, detailed job description issued by Capgemini outlining the details of the work to be performed by Mr. Voleti and the percentage of time to be spent on each of the job duties of the position, and the academic documentation of the candidate. This opinion also is based on research regarding the issues discussed herein and my vast experience in the field of information technology, as well as the evaluation of professional positions of employment in the computer field. The research sources on which this expert opinion letter is based serve to supplement my extensive knowledge of the pertinent subject matter, as well as available information regarding the nature of the job duties of the proffered position of Applications Consultant 2, the specialized analytical functions to be fulfilled in the subject position, the required educational background to enable an individual to undertake the requisite duties, and the suitability of a degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Technology, Engineering, Electronics Electrical Systems, Information Engineering, or a related specialized field for the performance of the job duties specified herein. I am fully familiar with Capgemini, as a company, as well as its competitors and the industry sector in which the Company operates. I consult with recruiters and academic advisers to ensure that candidates studying computer-related subjects are prepared for the actual requirements of companies who hire these professionals. This combined review of the nature of Capgemini's business, the proffered position's duties, and my own independent research fully prepared me with sufficient information to provide a thorough and informed evaluation and positional analysis. As an industry expert with many years of combined professional and teaching experience in the areas of Computer Science and Computer Engineering, I do not require any further in-depth knowledge of the business of Capgemini or the subject position to provide this expert opinion letter.

In this case, it would be impossible to handle the required job duties of the Applications Consultant 2 with Capgemini without at least a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Information Computer Information Systems, Management Information Technology, Electrical Engineering, Electronics Engineering, or a closely related field. Even a graduate of a bachelor's program in another science field would be unable to handle the required job duties because he or she would lack the educational underpinning necessary to execute the technically complex professional job duties. By their very nature, the job duties of the Applications Consultant 2 herein require a highly specialized degree in one of the foregoing fields to enable a candidate to conduct the complex and specialized job duties. The requirement of a degree in one of the foregoing specialized fields, marks the position as a specialty occupation.

Among industry professionals, it is widely recognized that individuals holding a position such as that of the Applications Consultant 2 herein necessarily must have at least a bachelor's-level degree in one of the fields specified herein. The requirements of the position represent the standard minimum requirements for entry into the position of Applications Consultant 2 and similar positions in the areas of big data integration, cloud migration architecture, portal design, cloud-based data warehouse applications and solutions, infrastructure integration, database performance, and cloud support and troubleshooting.

Accordingly, I find that the position of Applications Consultant 2 offered to Ravi Teja Voleti by Capgemini necessarily requires the prior completion of at least a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field and, therefore, qualifies as a specialty occupation.

## Credentials of Expert Evaluator

I am providing this expert opinion letter and positional analysis based on my educational background, experience as a university professor, industry experience, and expertise and experience as an evaluator of academic credentials, professional experience, positions of employment, and industry norms in Computer Science, Information Technology, Management Information Systems, Engineering, Computer Information Systems, and related areas.

I am in a position to provide this opinion based on my personal background, educationally and professionally, in Computer Science, Information Technology, Management Information Systems, Engineering, Computer Information Systems, Computer Engineering, and related areas. In the past, I have offered expert opinion letters and analyses of the academic and professional credentials of candidates for university admissions and employment positions in these fields. I have had an opportunity to observe and compare the abilities of numerous talented students in the computer field, and to analyze the ways in which the educational backgrounds of these students have been applied in professional industry. Additionally, I have become intimately familiar with the nature and depth of knowledge and skill, both theoretical and practical, gained by University who study Computer Science, Information Technology, students Management Information Systems, Engineering, Computer Information Systems, and related subjects, and how that knowledge and skill is recruited and applied by employers in a variety of industries. Thus, I believe that I am qualified to opine on positions of employment in the areas of Mathematics, Computer Science, Engineering, Computer Information Systems, including the proposed position of Applications Consultant 2, as offered by Capgemini to Mr. Voleti. A copy of my resume is attached to this letter.

To further elaborate, I am providing this Expert Opinion Letter and Positional Analysis based on my experience as a professor and evaluator of foreign credentials in the Computer and Information Sciences major at the Fordham College of Liberal Studies of Fordham University, in New York. Fordham University is accredited by the Middle States Association of Colleges and Post-Secondary Schools, among other bodies. Fordham University has a program for granting college-level credit based on a candidate's foreign educational credentials, training, and/or employment experience. Fordham University, I teach courses in Computer Science, Information Technology, Management Information Systems, Engineering, Computer Information Systems, and related subjects. As an evaluator, I am responsible for reviewing academic and experience qualifications in Computer Science, Information Technology, Management Information Systems, Engineering, Computer Information Systems, and related fields for applicants for admission to Fordham University. I participate in "Life Experience Portfolio" programs at Fordham University, through which college credit is granted in various academic disciplines based on learning attained through prior study, training, and/or employment experience, and I have gained direct experience in evaluating employment histories and making recommendations as to the granting of credit for prior learning and employment. I hold a bachelor's degree from Fordham University and a master's degree from the Polytechnic Institute of New York and have completed additional graduate courses and training in a wide range of languages, programming subject areas, and advanced programming I have conducted extensive research techniques. mathematical programming analysis, algorithmic design, data processing, computer programming, computer modeling, Software engineering, and other areas of the larger computer field, as evidenced by my publications and other research achievements.

In the past, I have offered opinions and analyses of the academic and professional credentials of candidates in connection with University admissions and with employment positions in Computer Science, Information Technology, Management Information Systems, Engineering, Computer Information Systems, and related areas. I have issued thousands of credentials equivalency evaluations that have been accepted by the US CIS. Additionally, I render authoritative opinions on issues relating to international education systems, foreign credentials equivalencies, and professional positions of employment in Computer Science, Information

Technology, Management Information Systems, Engineering, Computer Information Systems, and related areas. On the basis of these experiences, I am suitably qualified to issue an expert opinion letter regarding the nature of the requirements for the subject position of "Applications Consultant 2," as offered by Capgemini to Mr. Voleti.

## Introduction to the Company and the Proposed Position

Capgemini America, Inc. is a leading provider of information technology services to businesses and public-sector organizations. The Capgemini Group brings together more than 20,000 professionals in 15 countries and is a wholly-owned subsidiary of Cap Gemini SA, one of the world's leading providers of consulting, technology, and outsourcing services. The Company offers a wide range of integrated services that combine leading-edge technologies with deep sector expertise in and a strong command of four key business areas: consulting services, application services, technology and engineering services, and other managed services.

In the instant project, Mr. Voleti will be assigned to work at the offices of Capgemini's client, Virgin Cruises Intermediate Limited. Capgemini is assisting Virgin Cruises in building a recommendation engine to provide targeted activity and other recommendations to customers and building a data warehouse for business to gain access to business analytics data; implementation of Sales, Service and Marketing activities on the Cloud; initiating, iterating and implementing the minimal viable product Phase 1, 2 and Phase 3 for the Virgin Cruises Intermediate Limited.

In the proffered position of Applications Consultant 2 with Capgemini, Mr. Voleti would be responsible for gathering and analyzing requirements, design, develop, lead, deliver data solutions in AWS using Talend as an ETL and Big data Integration tool and to build Data warehouse cloud application for Virgin Cruises Intermediate Limited enabling business users to use this application for managing their sales processes tracking the lead to opportunity lifecycle and corresponding management of revenue. He will prepare Snowflake schema, Star schema, dimensional physical and logical data models using Erwin and provide estimations; develop and lead Proof of Concepts (PoC's) of integrating Talend with AWS, Kafka, ActiveMQ, Salesforce, Datamapper, Metaservlet, Metadatabridge, ESB, Spark with EMR clusters, Python, Streaming and Rest APIs, Queues, Unix \Windows Power Shell scripting; develop Talend DI, Big Data Batch, Streaming, ESB, Spark jobs, custom code, scripts with necessary auditing and logging processes. Further, the Applications Consultant 2 will deploy code from development to production using manual and CI/CD processes using Bit Bucket, Nexus, Jenkins, analyze test scenarios, unit testing, prepare design documents,

mapping documents, release documents, test cases, test automation, regression, user acceptance testing, integration testing, performance testing, job scheduling (using TAC, crontab, AWS Lambda) and monitoring. He will be working with multiple teams to research, architect, engineer and configure complex DataMart's with information from different sources (such as Amazon s3, SFDC objects, push topics, Kafka topics, Databases, XML, JSON, Twitter, Facebook, Instagram, Queues), debugging, fixing defects, and alerting processes using AWS SNS and SMTPs in support of global, business critical systems.

The duties of Applications Consultant 2 will also encompass working Oracle, Redshift, MySQL on AWS RDS, Hive, Presto and HBase databases to build a recommendation engine platform and provide business reporting data; implement performance tuning techniques, improve system and database performance by writing complex queries, stored procedures, automation, operations and processes. This duty will include preparing Tableau Reports, Graphs, Charts and Dash boards; developing spark/python code and creating real time and batch data applications; resolving issues and problems while handling OLAP, OLTP systems to ensure timely delivery, quality and timelines. Lastly, he will be responsible for performing solution demonstration (Agile Sprint showcases) and progress using JIRA to gather feedback and review comments about development activities done by the scrum team.

As discussed below, the foregoing job duties of the Applications Consultant 2 would involve high-level specialized responsibilities that could not be performed by an individual who has a bachelor's degree in a field other than Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a closely related specialized field. Thus, the position of Applications Consultant 2 with Capgemini clearly requires a bachelor's degree in a specialized technical field and, therefore, qualifies as a specialty occupation.

# Specialized Nature of the Position of Applications Consultant 2

The position of Applications Consultant 2 is a highly technical professional position that incorporates concepts of several complex disciplines and necessarily requires the prior completion of a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field. While the position of Applications Consultant 2, itself, necessarily requires the prior completion of at least a bachelor's degree in one

of the foregoing specialized fields, the job duties of the position clearly support the need for a specialized degree in order to enable an individual to perform the requisite job duties.

The position of Applications Consultant 2 with Capgemini is focused in the highly specialized areas of cloud-based computing technologies. Mr. Voleti would be assigned to handle state-of-the-art cloud-based design, integration, and troubleshooting work on behalf of a client of the Company, Virgin Cruises Intermediate Limited. He and his team would be engaged in the enabling of a Private IAAS Cloud Portal for Virgin Cruises users to provision and manage infrastructure resources on private multi-tenant data centers. As such, they would be aligning toward Virgin Cruises' aim of transformation toward being an end-to-end cloud platform and software solutions vendor, accelerating provisioning services, and reducing TCO and operating costs. He would provide technical leadership in connection with migration and integration of systems to the cloud, develop architectural strategies, design portals to provision cloud infrastructure, provide technical solutions for the cloud, perform infrastructure integrations, and coordinate cloud support activities. The performance of the highly technical functions of this role would necessitate at least a bachelor's-level educational background with a strong foundation in systems design and analysis, cloud computing solutions, cloud migrations, software development, infrastructure integrations, technologies, operating systems, networking, and programming.

In the subject position of Applications Consultant 2 with Capgemini, Mr. Voleti would be responsible for serving as a Subject Matter Expert to design, develop, and deliver data solutions in AWS using Talend as an ETL and Big data Integration tool and to build Data warehouse cloud application for client enabling users to use this application for managing their sales processes and tracking the lead to opportunity lifecycle and management of revenue. Mr. Voleti would be required to interpret architecture and design, conduct code reviews, and customize portals for the provision of data warehouse cloud infrastructure. These functions would necessarily require the prior completion of at least a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, or Electronics Engineering that provided a background application design, cloud migrations, cloud infrastructure, software deployment with API technologies, programming, cloud orchestration, and server-based services.

A critical role of the Applications Consultant 2 with Capgemini relates to the engineering of AWS-based data warehouse cloud architectures. As such, Mr. Voleti would prepare snowflake schema, star schema, physical and logical

data models using Erwin, develop proof of concepts, design, setup, installation, configuration, and administration, as well as the deployment of infrastructure, and would provide technical solutions for the cloud AWS platform. In this function, he would create development user stories in JIRAs and provide solutions across Dev / Stage and Prod environments. This function would require expertise in cloud technologies and a strong foundation in systems design and development. In performing this function, Mr. Voleti would design mission-critical integration points, develop logical and physical data models, create user-defined functions, and design leading-edge data platform solutions. These application development responsibilities would entail algorithm design and development, with a focus on latency and bandwidth optimizations, system flow data analysis, and the development of scalable, reliable, and efficient interfaces. In performing this function, Mr. Voleti would be required to conduct high-performance computing, write stored procedures, and manage configuration and integration processes. These processes necessarily would require at least a bachelor's degree in a highly technical, quantitative field and an underlying background in advanced computer programming languages, software and systems architecture and design, capacity planning, cloud-based technologies, and client-side and server-side development, and proficiency in AWS, Kafta, ActiveMQ, Datamapper, Metaservlet, Metadatabridge, ESB Spark, StackStorm, Python, and RESTFul API technologies.

Additionally, the Applications Consultant 2 would be responsible for the integration of infrastructure with the application. To perform these functions, Mr. Voleti would rely on skills in cloud migration and systems integration. In driving the deployment of solutions onto cloud-based platforms, he would design leading-edge data platform mission-critical solutions. This highly technical role would encompass the development of logical and physical data models, the creation of user-defined functions, views, and scripts, the development of cloud adoption and deployment models. Moreover, Mr. Voleti would rely on a strong technical educational foundation and expertise in operational monitoring solutions, system center operations monitoring, and performance optimization in providing deep product expertise and guidance on cloud migrations. The integration process would involve developing systems that set rules of automation and integrate function libraries, test data sources, and reusable models. Mr. Voleti necessarily would be engaged in defining business requirements, developing hypotheses, designing automation, and developing scalable and reliable frameworks using programming skills, reporting and execution engines, and open-source technologies. In this role, he would be required to deploy software and systems changes, document requirements for the deployment of integrations and rely on expertise in middleware and hybrid cloud systems. In order to execute these duties, a suitable candidate must have a strong educational foundation in data structures, computer architecture, cloud technologies, distributed systems, framework design and development, and computer architecture, an understanding of risk factors in application architecture, and knowledge of how to design and develop automation processes using different frameworks.

Further, the Applications Consultant 2 with Capgemini would have various responsibilities relating to cloud support and troubleshooting. In this role, Mr. Voleti would coordinate cloud support activities, capture bugs in design, and ensure code-related deployment in various environments. The performance of these duties would require him to use cloud automation tools to provision virtual machines, validate code quality, correct errors, implement performance tuning techniques, improve system and database performance, prepare Tableau report, graphs, charts and dashboards for frontend reporting, ensure that results are produced, resolving engineering problems to handle OLAP, OLTP systems, and conduct trial runs of programs to ensure that the desired information is produced. A strong software engineering and code development background is required to analyze code and systems to identify errors and enhance software and systems quality, assess memory leaks and buffer overflows, and improve overall systems security. Mr. Voleti would follow a systematic approach to identify and resolve complex problems by analyzing symptoms, reproducing technical issues, eliminating unnecessary systems components, researching technical issues, following systematic and logical processes to verify expected technical systems functions, and repairing technical systems issues. In order to conduct these technical support functions, a properly trained information technology professional would be required to apply principles of operating systems, computer architecture, Python programming, PowerShell scripting, messaging frameworks, virtual machine configuration, and systems development and integration.

As discussed herein, programmers, developers, and systems architects, handle highly technical job duties in the areas of systems design and analysis, algorithm design, work with databases like Oracle, MySQL, AWS RDS, and Hive, application development, software engineering, cloud migration architecture, portal design, cloud-based solutions, infrastructure integration, and cloud support and troubleshooting that only could possibly be handled by individuals with post-secondary degrees with an educational foundation in Computer Science, Computer Engineering, Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field. The job duties and the position of Applications Consultant 2 must be analyzed in the context of the information technology field. The highly complex responsibilities of the position involve technical duties that could not be performed by an individual lacking at least a bachelor's degree in a specialized and highly technical educational field. A bachelor's graduate in a liberal arts field, or even a field of science or technology not specialized in one of the foregoing fields would be unable to perform the required duties of the position.

Significantly, the educational requirements of the proffered position of Applications Consultant 2 with Capgemini are quite substantial. A qualified candidate must be able to bring to bear critical academic concepts of Computer Science and Engineering, such as software engineering, computer programming, application development, requirements analysis, technical specification development, algorithm design, architecture design, discrete systems architecture, networks, programming techniques, operating systems, systems design and analysis, database management systems, cloud technologies, systems integration, containerization, database design and development, systems simulation, algorithms and data structures, computer information systems, and computer science and engineering. The Applications Consultant 2 position demands a complex mix of sophisticated academic concepts that only could be learned through at least a bachelor'slevel educational background in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Electrical Engineering, Information Systems, Information Technology, Electronics Engineering, or a related specialized field. In order to perform the requisite tasks involved in the development and implementation of original applications, systems, and technologies, a qualified candidate must have an educational background that includes studies in the subjects specified above. Clearly, a bachelor's-level educational foundation in a highly technical field is required to handle the varied and complex job duties of the proposed position relating to design, development and implementation of Data warehouse cloud applications architecture and migration, portal design, cloud-based solutions, support integration, continuous integration, cloud infrastructure troubleshooting, the design, architecture, development, programming, deployment, migration, and delivery of software applications and systems, the design of systems with robustness and stability, the implementation, testing, and deployment of systems and applications, the evaluation of systems performance, and participation in strategic planning to achieve technical and business objectives. An individual who lacks at least a bachelor's degree in a suitable technical, quantitative field would be unable to handle the requisite duties of the position of Applications Consultant 2.

Thus, the required duties for the subject position of Applications Consultant 2 at Capgemini describe a position that cannot be properly performed without at least a specialized bachelor's-level degree (e.g., in Computer Science, Computer Engineering, Computer Management, Computer

Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related technical field) and the position qualifies as a specialty occupation.

# Industry Analysis of the Position of Applications Consultant 2

Among educators and industry experts, it is widely recognized that individuals holding positions such as that of the Applications Consultant 2 herein must have at least a bachelor's-level degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field. The nature of the job duties is technical and highly quantitative and analytical; therefore, this position could not be filled by an individual with a degree in another field or with a degree below the bachelor's level. Among information technology professionals, it is incontrovertible that individuals only can be hired for such positions if they have at least a bachelor's-level degree in one of the foregoing fields.

Indeed, it is my opinion that an Applications Consultant 2 who would be responsible for duties such as those described above is required to demonstrate academic studies in an appropriate quantitative and technical field, at no less than a bachelor's level, in order to competently execute the required job duties. Generalized knowledge (as opposed to specific, focused, and in-depth bachelor's-level knowledge) of the applicable technical, scientific, and operational concepts, alone, is not sufficient for an Applications Consultant 2 to handle the functional requirements of the instant position. Bachelor'slevel education in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Information Technology, Electrical Engineering, Systems, Engineering, or a related specialized field, provides a technical educational foundation that is essential for an individual to handle the required duties involved in the development and deployment of cloud-based systems, the migration of systems to the cloud, the management of cloud migrations, the use of cloud service technologies, the deployment of continuous integration, and cloud support and troubleshooting.

Given the technical responsibilities of the proposed position of Applications Consultant 2 in performing the specialized duties specified above as part of the above-quoted job description -- it is evident that the position requires the application of the sophisticated, advanced concepts of software engineering, computer programming, application development, technical specification development, architecture design, discrete structures, systems architecture, operating systems, systems design and analysis, cloud

technologies, systems integration, database design and development, systems simulation, algorithms and data structures, and computer science and engineering (and thus the analytical, quantitative, and conceptual knowledge, as would be gained via appropriate bachelor's-level study, to customize and deploy them) which are required for the performance of the requisite job duties, at a necessarily professional and adaptable level. These requirements technical bachelor's-level comprehensive and highly background comprising diverse and highly technical and quantitative methodologies and techniques inherent in the foregoing concepts. For an Applications Consultant 2, such job duties necessitate reliance on a highly technical academic background to enable a suitably qualified candidate to undertake the wide range of quantitative and information technology duties required in the subject position.

The positional duties clearly demonstrate that the activities to be performed by the Applications Consultant 2 involve in-depth technology engagement, with highly complex functions of requirements analysis, cloud technical solution design and development, cloud migration architecture, cloud design, programming, provisioning, algorithm architecture, continuous integration, testing, implementation, deployment, systems migration, and testing. The creation of innovative cloud-based solutions requires a highly-skilled and properly qualified candidate who has the deep technology background necessary to design and create leading-edge solutions, conduct cloud-based migrations, perform continuous integration, and conduct cloud support and troubleshooting functions. Indeed, the subject position lies at the heart of the Company's software, systems, and cloud solution development and support efforts and, therefore, a properly trained, professional-level Applications Consultant 2, charged with the duties outlined above, would be essential to Capgemini's functioning and success. In my experience, detailed above, I have observed that it is a standard practice in a variety of industries, including companies engaged in the development of cloud-based solutions and support, such as Capgemini, to hire fully trained specialty-level programmers, developers, and solution architects for roles involving in-depth engagement in original systems design and development, programming, cloud portal design, cloud-based solution development, cloud migration and integration, cloud technology support, systems migration, and systems integration, and to ensure that the candidates for said positions possess the requisite specialty-level training.

The positional duties clearly demonstrate that the activities to be performed by the Applications Consultant 2 encompass in-depth technology engagement, involving complex cloud solution design, architecture development, migration, integration, and support responsibilities. In other words, the instant position lies at the heart of the Company's cloud solution

development, migration, integration, and support efforts and, therefore, a properly trained, professional-level Applications Consultant 2, charged with the duties outlined above, would be essential to Cappemini's functioning and success. In view of the technical, analytical, strategic, and quantitative duties required for the subject Applications Consultant 2 position, it would be impractical to employ a candidate for the position who lacks a suitable quantitative educational background in Computer Science, Computer Computer Management, Computer Information Systems, Engineering, Systems, Information Technology, Management Information Electrical Engineering, or Electronics Engineering.

Furthermore, based on my expertise and background academically, as a professor in Computer Science, Engineering, Mathematics, and related fields, and in industry, I have observed that it is a common industry practice for companies engaged in substantial technology systems development and implementation and heavily dependent on original, state-of-the-art systems development, such as Capgemini, to hire for such positions from bachelor'slevel programs in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, or Electronics Engineering, as there is a direct correlation between study in a relevant technical subject and a solution and systems development position in the computer field, as in the instant position. This degree requirement is common to the industry in similar positions and is normally the minimum requirement for entry into the position of Applications Consultant 2 (and in similar programming and solution architecture roles) at the Company and other Indeed, hiring data from publicly-available similarly situated employers. resources serves to support this overall trend, and the industry-standard approach to hiring for such positions.

Thus, I find that the position of Applications Consultant 2 with Capgemini is specialty in nature, requiring the ability to apply the knowledge associated with the attainment of at least a bachelor's-level degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field, and that it is fully reasonable for an employer such as Capgemini to establish a specialty requirement for such a position. Accordingly, the position (as described and presented in the employer's support letter) meets reasonable and appropriate standards for a specialty occupation.

## Conclusion

In conclusion, Ravi Teja Voleti has been offered a position as an Applications Consultant 2 with Cappemini, a highly specialized position in the areas of data solutions, build data warehouse cloud application and architecture, migration, portal design, cloud-based solutions, infrastructure integration, and cloud support and troubleshooting. The job duties of the subject position involve highly technical, complex functions that necessarily require a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Information Systems, Technology, Electrical Engineering, Electronics Engineering, or a related specialized field. The sophisticated responsibilities of the Applications Consultant 2 position confirm the professional nature of the position with respect to complex quantitative, technical, and analytical duties that necessitate the prior attainment of at least a bachelor's-level degree in one of the foregoing specialized fields. The requirements of the position, at the intersection of sophisticated concepts of software engineering, computer programming, application development, technical specification development, architecture design, discrete structures, systems architecture, operating systems, systems design and analysis, cloud technologies, systems integration, database design and development, systems simulation, algorithms and data structures, and computer science and engineering, necessarily require an individual with an educational background attained through at least the level of a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related field. Among industry professionals, it is widely recognized that individuals holding a position such as that of the Applications Consultant 2 herein necessarily must have at least a bachelor's-level degree in one of the foregoing fields. The requirements of the position represent the standard minimum requirements for entry into the position of Applications Consultant 2 with Capgemini and other employers in the information technology sector. Since the position of Applications Consultant 2 with Capgemini necessarily requires the prior completion of at least a bachelor's degree in a complex, specialized, and highly technical field, the position qualifies as a specialty occupation.

Accordingly, I find that the position of Applications Consultant 2 offered to Ravi Teja Voleti by Capgemini is a specialty occupation that necessarily requires the prior completion of a bachelor's degree in Computer Science, Computer Engineering, Computer Management, Computer Information Systems, Management Information Systems, Information Technology, Electrical Engineering, Electronics Engineering, or a related specialized field.

The foregoing is an opinion of the undersigned, prepared at the request of a representative of the above-referenced employer. This opinion is based on copies of the original documents provided by the candidate and represented to be authentic and true copies of the original documents; I have no reason to doubt the authenticity and accuracy of these documents.

Dated: August 13, 2018

Lawrence Wolk

Professor, Computer and Information Science

Fordham College of Liberal Studies

Fordham University

For detailed statement of qualifications and experience of evaluator, see attached resume



FORDHAM SCHOOL OF PROFESSIONAL AND CONTINUING STUDIES OFFICE OF THE DEAN

February 1, 2018

To Whom It May Concern:

At the request of Lawrence Wolk, this letter is to confirm that Fordham College of Continuing and Professional Studies of Fordham University has a program for granting to adult and traditional undergraduate students credit based on learning attained through prior learning, independent study tutorials, training, and/or employment experience. Fordham College facilitates the granting of such credit through its "Credit for Experiential Learning" program, enrollment in Independent Study courses, as well as through CLEP and credit by examinations. Further, as discussed herein, Professor Wolk has authorization to grant college-level credit for training and/or experience.

Fordham University is accredited by the Middle States Association of Colleges and Schools, among other bodies. In addition, Fordham University has a program for granting college-level credit for training and/or employment experience. Details on Fordham University's credit-for-experience may be found at https://www.fordham.edu/info/23078/undergraduate\_degree\_programs/2265/receive\_credit\_for\_prior\_learning.

Mr. Wolk teaches in the field of Computer and Information Science at Fordham University. His areas of teaching and research specialization include Computer Science, Information Systems, Computer-Generated Imaging and 3D Graphics Animation, Data Structures and Algorithms, Relational Database Design, Network / Client-Server Computing, Computer Organization and Architecture, Information Retrieval and related areas. Since 1998, he has participated in the "Life Experience Portfolio" program and also has conducted Independent Study Tutorials wherein he has evaluated current and prior learning, academic and employment skills, and work experience for credit in Computer Science, Information Systems, Information Technology, Computer Graphics/Animation, and related fields, such that credit may be granted on the basis of Prof. Wolk's recommendations and Independent Study tutorial grade submissions. He has gained direct, applicable experience in contributing to University certification programs developed for individuals who are currently matriculated in the Computer and Information Science Major and who wish to obtain course credit based upon equivalent prior life learning, independent study and experiential learning. He has also recommended students for the continuation of their academic studies and career development in Computer Science In both. Graduate Level Computer Science Programs, and Industry Internships:

I trust that this information is sufficient documentation that Prof. Wolk has the ability to assess, evaluate, and recommend the award of credit for prior life or experiential learning in the above-specified fields, and that he is familiar with the programs and procedures in place for making these determinations.

Cira T. Vernazza Associate Dean

Sincerply,

RESUME OF: Lawrence M. Wolk

108 Sagamore Road Apt 3J Tuckahoe, New York, 10707 Primary Phone: 914-793-4290

Email: <u>lmwolk37@hotmail.com</u>

#### <u>SUMMARY</u>

Twenty Years College-Level teaching experience including curricula development in Mathematics, Computer Science and Computer Software Applications Responsible for Software Resource Development on Educational Network Servers in the fields of Interactive Computer Graphics Applications, Network and Client Server Computing, Programming Languages and Data Structures, Computer Algorithms and Scientific Programming.

Over Twenty-Five years experience in numerical and data processing in scientific, engineering and commercial applications. Experience with Imaging and Graphics Application Development, including development and implementation of software for analyzing Indoor /Outdoor Radar Range performance and Antenna Distributions, and creation of Adaptable Graphical Software for collecting and displaying financial or scientific data in different formats.

#### **EXPERIENCE**

Adjunct Instructor of Computer and Information Sciences Fordham University (1994- Present)

Instructor of Computer Programming Languages (Procedural and Object-Oriented), Applied Calculus, Computational Structures, Interactive Computer Graphics, Visual Basic, Computer Imaging, Database Systems(MS Access), Computer Organization, Internet and Client Server Computing, and Data Structures, all in support of Information Sciences Department and Evening Liberal Studies Instructional Programs. Ongoing contributions towards curricula development in Mathematics, Computer Science and Computer Software Applications with the CIS Department and Evening Studies Center. Extensive involvement in course restructuring and software resource development on educational network servers for required and elective subject areas.

Participated in academic evaluations and recommended the assignment of equivalent-credit or augmentation of degree status for-matriculated———Fordham College of Liberal Studies Computer Science Majors based upon outside Professional Experience in Information Science, or upon completion of accelerated learning tutorial courses. This was considered part of Fordham's Prior Learning Portfolio /Equivalent Credit for Training and Employment Program.

RESUME OF: Lawrence M. Wolk, page 2

#### Software Consultant (1993 - present)

Design, coding and testing of graphical simulators to support electronic trading platforms. Creation of diverse numerical display graphics for selected securities. Calculaton, modeling and display of computer generated images for biomedical imaging, radar surveillance simulations, and target identification. Creation of Interactive Relational Database Systems and Query Interfaces for Corporate Security Applications. Generation of coding interfaces for the collection of serial and parallel channel measurement data from electronic components.

#### Senior Numerical Software Analyst

#### Riverside Research Institute, 1985-1993

Eight Years of progressively responsible experience as senior numerical analyst. Performed analysis, simulation and detailed calculation of indoor compact radar range antenna performance and radar cross sections of very low-observable structures. Computations included interface with CRAY computer for electromagnetic simulations and VAX based independent graphics processor (both written in Fortran 77). Responsible for planning , executing and presenting software demos for sponsors and generating project reports for wide spectrum of software project efforts.

## Grumman Aerospace Corporation 1982- 1986 Senior Engineering Analyst

Initially as full-time employee, conducted numerical analysis and simulation (using IBM 365/VMS mainframe and Fortran language, and HP 1000) in support of Space-Based satellite antenna system development, including the modeling of parabolic dish and phased array antenna performance, and the simulation of the behavior of other electronic components of satellite defense surveillance systems. As a consultant, assisted engineering personnel in adapting satellite radar simulations to support current application design and development projects, including: phased array lens development, satellite power distribution system fabrication, optical sensor design, space based antenna feed optimization, and verification of measurement data.

RESUME OF: Lawrence M. Wolk, page 3

### Raytheon Corporation 1980-1982 Associate Engineering Analyst

Developed computer models (on HP 1000 in Basic and Fortran 4,5)and conducted automated measurements to make assessments of the performance of microwave components , phased array antennas, space-borne and air-borne radar antenna system configurations and retrodirective jamming systems.

#### **EDUCATION**

#### M.S.E.E., Polytechnic Institute of New York, 1980

Major: Electrical Systems Engineering

Minor: Electrophysics

Completed an Engineer Project Course: Conducted Electro-Optic simulation studies, including development of Fiber Optical Cable propagation simulation on an HP 1000 computer in Fortran 4, including introduction of a mathematical filter, numerically optimized on optical communication fiber to study potential for signal enhancement at receiver device

GRADUATE RESEARCH FELLOWSHIP DEPARTMENT OF ELECTROPHYSICS, 1979-1980/During the 1979-1980 academic year, as part of my responsibility as graduate research fellow, I generated, modified ,updated and implemented an outer atmospheric (ionospheric) multiple particle /electromagnetic -acoustic wave interaction model simulation in C language/UNIX platform (IBM system).

### B.A., Mathematics, Fordham University, 1976

Mathematical reasoning, mathematical modeling. Numerical Characterization and modeling of physical phenomena. Well- diversified liberal arts curriculum integrated with scientific major subjects

#### Graduate Coursework, Polytechnic Institute of New York 1980-2000

Mathematics of Computer Graphics Programming Languages Database Systems Quantum Electronics Antenna Modeling Fibre Optic Communications Optimization Modeling Control engineering Signal Processing RESUME OF: Lawrence M. Wolk, page 4

#### **PUBLICATIONS:**

- 1. Wolk, L., Gallegro, G. et al, "PALDEM: Phased Array Lens Demonstration", Grumman Aerospace Corporation, March 1983.
- 2. Wolk, L., Gallego, G et al, "SPPD: Space Satellite Power Processor Design", Grumman Aerospace Corporation, June, 1984.
- 3. Wolk,L, Gallegro, G et al, "LARST: Large Aperture Radar Sensor Technology", Grumman Aerospace Corporation, May 1985
- 4. Wolk, L. and Orman, M, "Radar Scattering and Absorption By Coated Micro-Tubular Filaments", Riverside Research Institute, Final Report, May 1986.
- 5. Wolk, L. and Arm, M, " CORPAC- Compact Radar Range Programming Analysis Code", Riverside Research Institute/ Antenna Measurement Techniques Association Conference, Boulder Colorado, October, 1991.
- 6. Wolk,L and Arm, M, "Compact Range Error Budget Analysis", Riverside Research Institute/AMTA Conference, Boulder Colorado,October, 1991
- 7. Wolk,, L, " A Two-Dimensional Surface Gridding Algorithm For Perfect Electric Conductor Scattering Codes: Analysis of Radar Cross Sections", Riverside Research Instistute, September 1991.