

Architectural Engineering:

Architectural Engineering is the practical application of an architect's design. Essentially, the architectural engineer determines the how to make an architect's dreams a reality.

Top Architectural Engineers:

Nathaniel Hudson - Nathaniel Hudson, AIA, is a native Northern Nevada striving to make a difference in his community and advocate for the practice of architecture. Hudson's career has spanned academia, art, and practice. He currently works to provide dignified affordable housing in Reno and hopes to take advantage of the unique landscape of Northern Nevada to develop region-specific architecture. With the help of AIA, he seeks to expand the architect's role in local government and state legislative agendas while leading emerging professionals in fundraising efforts for ArchiPAC and helping push forward the National Design Services Act (NDSA). His mission to create positive change is evident in the many roles he plays as an architect, advocate, educator, husband, and father.



Ahsan Kareem - He is currently a co-principal investigator and senior researcher for the National Science Foundation's major research centers under the Natural Hazards Engineering Research Infrastructure program, he deals with cyberspace infrastructure and simulation and modeling for natural hazards.

Beyond his research, Kareem has distinguished himself as an international leader through his service as the president of the International Association for Wind Engineering. He has also served as president of the American Association for Wind Engineering and in top-level senior leadership positions of the Structural Engineering and Engineering Mechanics Institutes of the American Society of Civil Engineers (ASCE). He currently serves as an honorary professor at Tongji University; Southwest Jiaotong University; Hong Kong Polytechnic University; Central South University; Shijiazhuang Tiedo University; and as a distinguished visiting professor at NanjingTech University. This is in addition to guest professorships at Beijing Jiaotong University, Chongqing University, the Southeast University, Nanjing, and Tokyo Polytechnic University. Kareem was also appointed by the State Council of the People's Republic of China as a high-end consultant to Tongji University — the highest level of appointment given to a foreign expert in China.

Interviews:

Dr. Rodolfo Aguilar - Dr. Aguilar is semi-retired. However, he still teaches one graduate level course at the A.B. Freeman School of Business of Tulane University, New Orleans, LA. The best advice I received from Dr. Aguilar was: Do not limit yourself to architectural engineering or to any other field. Use the knowledge you acquire to continue learning and growing throughout your life and be willing to take risks.

Kent A. Poyser, P.E. - Mr. Poyser is the Principal Engineering Director of WDG ENGINEERS in New Orleans, LA. He is also owner of the company. The best advice I received from Mr. Poyser involved discussing difficulties involved in architectural engineering. He said one of the biggest challenges is meeting and managing the expectations of the client and architect. Everyone has a vision of what the building should look like when it's completed, we try to meet that expectation. It takes a lot of communication and compromise to get all of the features into the design that the owner wants, but still make the building functional.

Prof. Nicola Ruggieri - Professor Ruggieri is an official of the Ministry for the Activities and Cultural Heritage of the Italian State. Professor Ruggieri is responsible for helping to maintain landmarks such as Pompeii and the Colosseum. The most important piece of information Professor Ruggieri gave me was, "I believe that we should try to preserve rather than build and spend additional resources of our Earth, also as a need for ecology, in Italy in particular but also in the rest of the world. So, I believe that the market for professionals, architects and engineers will find more and more space in this field, so I recommend it."

Chad Abell - Mr. Abell is the owner of an unnamed architecture firm. Mr. Abell stated that, nothing you learn in school will replace a good attitude and strong work ethic. When you get out into the workforce always do more than is expected of you. When it comes time to cut back on staff, the ones that are always willing to do more, like taking out the trash, are the last to go!

Personal Mission Statement:

I value open communication and truthfulness about all things. I believe that knowledge is power and through the observation of history we can learn and further ourselves as a people. I truly care about preserving history for future generations and the preservation of knowledge. I will keep a positive attitude towards my progress and when facing adversity. I will try to do my best to learn about and maintain history when able. I will strive for a safe and continue to try to be well versed in the future. I will work towards perfection, or as close to it as possible, in all that I do. I plan to have a rewarding, fun, and lasting career legacy. I will dedicate myself to the safe preservation of our history and creation of a marriage of beauty and function. I do not know that I can and will succeed, but I will try my hardest at all times.

Closing Statement:

I have found this project to be one of the most informative projects I have ever participated in. It has been incredibly insightful and engaging. I cannot overstate the importance and usefulness of my mentor and all he has taken the time to do for me. Without him, this would have been less fun, less informative, and certainly less engaging. He has gone above and beyond to assist me in this endeavor. I would also like to thank the professionals who used their valuable time to answer my questions. A lot of useful information was garnered from the project. I have a clearer idea of where to go in order to achieve my dream of being an architectural engineer.

Top Architectural Engineering Organization:



Plan of Action:

My primary area of interest is the field of architectural engineering. I plan to read articles and journals pertaining to architectural engineering in order to continue learning as much about my interests as possible and to aid in the development of positive habits. I will continue to look for internships at architectural firms to acquire hands-on knowledge and practice in the field of architectural engineering.

My current career goal is to earn a degree in architectural engineering. In order to reach this goal, I plan to apply to and attend Louisiana Tech University in Ruston, Louisiana and major in architectural engineering program that allows for a five-year study and graduation with both a bachelors and masters in architectural engineering. I will contact the admissions department at Louisiana Tech University to request information about the program and prepare myself for college entrance and success as much as possible.

The high school and/or college courses I am currently enrolled in that are most directly related to my interests include Algebra I. As a freshman, I am limited in my course choices, but plan on enrolling in other courses that will aid in my goals in future years. This will include both high school and dual enrollment college courses. In order to prepare for a successful start to my postsecondary education, this semester, I am currently addressing the following three educational, social, and/or personal goals: Communication through writing, improved mathematical skills, and creating a plan of action in order to try and improve my chances of future success.

To meet my goal, I plan to develop a better understanding of the following areas of interest in regards to college entrance: learn about material dynamics, structural engineering, searching for potential scholarships, enrolling in college courses, and continue to work on finding and interviewing experts in architectural engineering during the next semester and summer. In addition, I plan to research during the next two months to learn more about computer drafting. Furthermore, I will seek out experts and mentors in Architectural Engineering in order to stay ahead of the curve and further development of my skill sets. During my first year of college, I plan to enroll in classes that will anchor my career plan and find organizations that will help me meet this goal. During the second year of college, I anticipate joining professional organizations that can aid in job searches and obtainment after college. My third year of college, I will be focusing on specific coursework to finish my degree track. My fourth year of college will be spent finalizing my bachelors' program and preparing to move directly into graduate school to obtain my masters.

Architectural Engineering Fast-Facts:

1. Architecture Was Once an Olympic Sport
2. Architectural engineers are also known as building engineers
3. An architectural engineer is responsible for many parts of a building, including: electrical layout, plumbing design, architectural support, and much more.
4. One advantage of using architectural engineers is that they have the technical knowledge to work effectively in their specialties with other designs
5. Architectural engineers also work in:
 - Telecommunications
 - Lighting
 - Guttering
 - Drainage
 - Elevator systems (office and industrial)
 - Fire alarm systems
 - Fire protection systems
 - Power distribution
 - Infrastructure

