

# James Brian Caffey

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## OBJECTIVE

I am seeking a position on a data science team where I can leverage my knowledge of machine learning, technology skills and diverse experience from multiple data-focused roles.

## EDUCATION

### **Data Science Certificate Recipient** (January 2015 – April 2015)

General Assembly, Washington, D.C.

- 11-week Python-based data science course aimed at understanding and implementing machine-learning techniques
- Performed visualization, regression, natural language processing and machine learning methods on diverse data sets

### **B.A. in Mathematics and Chinese Language and Culture**, *Phi Beta Kappa*, *Magna Cum Laude* (2006 – 2010)

St. Mary's College of Maryland, St. Mary's City, Maryland

- Coursework focused on Real Analysis and Abstract Algebra; served as a Teaching Assistant for courses in advanced mathematics; additional coursework in Microeconomics
- One semester of advanced Chinese language courses at Fudan University in Shanghai as a St. Mary's College Asia Study Abroad Scholarship recipient
- One semester of academic study at Peking University with a research internship at Financial Times Beijing Bureau
- GPA: 3.88 (on a 4.0 scale); inducted into the *Phi Beta Kappa* Society; awarded *Magna Cum Laude* honors; Saint Mary's Scholar and Dean's List

## EXPERIENCE

### **Independent Project: PC Market Data Analysis** (January 2017 – Present)

- Scrapped, cleaned, visualized and analyzed data from a popular PC-enthusiast website
- Implemented machine learning algorithms to predict the price of PC components and sentiment of PC part reviews

### **Capital Creative** (October 2015 – Present)

Washington, D.C. metropolitan area

- Established private technology consultancy
- Build websites for D.C. area community organizations
- Produce website tutorial video courses for niche community groups
- Provide 3D architectural modeling services for residential and commercial clients using Google SketchUp

### **Private Tutoring** (October 2015 – Present)

Washington, D.C. metropolitan area

- Established independent tutoring practice
- Tutor high school students in mathematics (Pre-Calculus, AP Statistics, AP Calculus) and Mandarin Chinese
- Tutor professionals in Microsoft Office skills
- Offer 3D printing seminars covering assembly of open source printers and 3D printing software

### **Sol Systems**, Independent Consultant (August 2015 – October 2015)

Washington, D.C.

- Planned, researched and delivered an executive report including energy storage market analysis and economic analysis of battery storage project proposals

#### *Market Analysis*

- Synthesized leading industry reports on distributed energy storage to help management understand market opportunities
- Conducted research focused on distributed energy projects that combine solar photovoltaics and battery storage for commercial and industrial applications in California

#### *Data Analysis*

- Used Python's pandas and matplotlib libraries to conduct data exploration and visualization of electricity consumption data for municipal buildings in Washington, D.C.; used data to understand trends in peak electricity use
- Developed financial models to forecast financial returns on energy storage projects

**Magic, Operations Manager (March 2015 – July 2015)**

Mountain View, California

- Joined a Y Combinator startup that offers on-demand concierge services through SMS
- Worked closely with CFO and operations team to manage banking, credit card accounts, contractor payments, fraud-detection and procurement

**China Energy Storage Alliance (CNESA), Research Manager (February 2012 – March 2015)**

Beijing, China

- Coordinated research efforts for a monthly bi-lingual publication covering global trends of technologies, policies and applications in the energy storage industry; contributed to annual White Papers and quarterly market reports
- Served as the primary contact between CNESA and international member companies and organizations, provided bi-lingual interpretation for executive meetings
- Represented CNESA as a guest author in industry publications and as an invited speaker at international conferences

*Project and Policy Database Management*

- Maintained detailed databases of global energy storage projects and country-specific energy policies

*Technology Profiling and Company Research*

- Conducted interviews, tracked and reported on the development of mainstream and emerging energy storage technologies at universities, research laboratories and private corporations

**VeriTrust USA, Analyst (August 2011 – February 2012)**

Bethesda, Maryland

- Programmed MS Excel macros to model and forecast sales for a financial services company
- Built an extensive database of realtors and private consultants to create an affiliate network
- Used Salesforce to streamline sales, operations, accounting and business reporting

**LANGUAGES, SKILLS & INTERESTS**

- Languages: Fluency in written and spoken Mandarin Chinese; proficiency in French
- Python: Experienced with programming Python and Python libraries for data science included in the Anaconda distribution including NumPy, pandas, SciPy, Scikit-learn and Natural Language Tool Kit (NLTK)
- Web Skills: Experienced with PhantomJS for web automation and BeautifulSoup for web scraping, HTML, CSS, Markdown, JavaScript, git
- Operating Systems: Linux and bash scripting, Windows 10, OS X, Docker, virtual machines, virtual environments
- Google SketchUp: 3D architectural modeling
- Blender: 3D modeling, physics simulations and video editing
- Video Production: Produced educational YouTube series for law students
- 3D Printing: Experienced with Prusa i3 3D printers and CURA software
- WordPress: Experienced in the development of WordPress websites with plug-ins