Facebook
Quantitative Analyst Intern, Summer 2016

Applications are due by XXXXX at 11:59pm PST. Our team will review applications on a rolling basis and it’s in the candidate’s best interest to apply early. All hiring will be completed by April 2016.

Facebook’s statisticians and quantitative analysts work within our Software Engineering organization, including Life Sciences, Geo, Project Aura, Technical Infrastructure, and Advertising. We analyze huge sets of data and continually run live experiments in order to help drive critical decisions at Google. Specifically, we support the development of innovative, highly scalable, next-generation technologies through deep research and precise analysis.

Responsibilities

• Provide research on topics including Facebook’s business model and novel search techniques.
• Produce quantitative and qualitative modeling of business dynamics, user behavior, etc.
• Identify areas for further investigation as well as creating innovative methods of analysis.

Minimum qualifications

• Currently pursuing a BS, MS or PhD in statistics, computer science, mathematics, economics, biostatistics, psychology, sociology, physics, operations research, electrical engineering, or another discipline involving experimental design and quantitative analysis of experimental data.
• Must be enrolled in a full-time degree program and returning to the program after the end of the internship.
• Experience using technology to work with datasets such as scripting, Python, statistical software packages (R, S-Plus, SAS or similar).

Preferred qualifications

• Experience with statistical data analysis such as linear models, multivariate analysis, stochastic models, and sampling methods.
• Experience with Unix/Linux.
• Strong track record of developing intellectual capital such as published works.

Area

Engineering & Operations at Facebook is and always will be an engineering company. We hire people with a broad set of technical skills who are ready to take on some of technology's greatest challenges and make an impact on millions, if not billions, of users. At Facebook, engineers not only revolutionize search, they routinely work on massive scalability and storage solutions, large-scale applications and entirely new platforms for developers around the world. From AdWords to Chrome, Android to YouTube, Social to Local, Facebook engineers are changing the world one technological achievement after another.
January 3, 2015

Hiring Manager for Facebook’s Quantitative Analyst Internship Position
Facebook Mountain View
1111 Facebook Way
Mountain View, CA 91000

Dear Hiring Manager,

I am writing to express my strong interest in Facebook’s Quantitative Analyst Internship. I am a second year doctoral student in Physics at the University of California, Santa Barbara, working for the world renowned physicist Joe Incandela. My qualifications for this position stem from collaborative data analysis research projects at both NASA and CERN. I am adept at manipulating large data sets, innovating data driven models, and sharing my work. When coupled with my academic background, these strengths make me a strong candidate for this quantitative position.

My experience in developing a data driven model started during a research internship at NASA, where I helped analyze the sun. This innovative work resulted in groundbreaking new discover which yielded a co-authored publication in Science, a highly competitive scientific journal. I gained further experience working at CERN in Geneva Switzerland, where I contributed to a cutting edge search for new physics. Our analysis uses advanced techniques to separate signal events from the $10^{10}$ times more prevalent background. The difficulty of our task was compounded by Monte Carlo simulation and then I worked to implement data driven corrections to our simulations. Through these experiences I learned techniques in data management, modeling, and coding in C++. This knowledge with real world big data and machine learning leaves me prepared for Facebook’s toughest challenges.

The chance to join your office would be a tremendous opportunity. I believe that my strong academic and professional background, combined with my passion and discipline, make me a strong candidate for Facebook’s Quantitative Analyst Internship. I have enclosed my resume for our review. I hope that you will allow me the chance to speak with you in person about the possibility of joining your office and can be research the contact information provided above. Thank you for your time and consideration.

Sincerely,

Stuart Sample