

Summary:

- Tried different approaches
 - Approach 1: Output everything in one go
 - Approach 2: search each item in the criteria, and then summarize together
- Also tried using APIs to get the Google Scholar citation count into the result, but didn't tune a good prompt to get this value into the result.
- Other things pending:
 - Use API to search internet about press coverage, that's not reflected in the CV

Encountered OpenAI rate limit, FastAPI endpoint pipeline works, but rate limit doesn't get me through to obtain the output.

Use one agent and task to do everything in one go:

- First : use one agent to complete all the tasks of identifying the
- See the agents/tasks in 'cv_research_1go.py'

The results are good, but not exhaustive enough

```
O1 Visa Eligibility Analysis for Jaksa Cvitanic
Key Eligibility Factors:
1. Awards and Achievements in the Field:
  - American Statistical Association Scholastic Excellence Award, 1992
Explanation: This award demonstrates recognition of Dr. Cvitanic's excellence in the
field of statistics, supporting his claim of extraordinary ability.
2. Membership in Prestigious Associations:
  - Vice-President, the Bachelier Finance Society (2020-present)
Explanation: Holding a vice-presidential position in a prestigious society like the
Bachelier Finance Society indicates a high level of respect and recognition in the
field of finance.
3. Published Material about the Applicant:
  - Numerous publications in high-impact journals such as the American Economic Review
and Management Science.
Explanation: Extensive publication record in top-tier journals showcases Dr.
Cvitanic's influential contributions to the field, demonstrating his extraordinary
ability.
4. Judging the Work of Others in the Field:
  - Editorial Board Member and Associate Editor for multiple journals including
Mathematical Finance, Annals of Finance, and Finance & Stochastics.
Explanation: Serving in editorial roles for several prestigious journals highlights
Dr. Cvitanic's expertise and trustworthiness in evaluating the work of his peers.
5. Original Contributions of Major Significance:
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- Developed influential theories in dynamic contract theory and mean-field games.

Explanation: Dr. Cvitanic's groundbreaking work in these areas has had a significant impact on the field of financial mathematics, underscoring his extraordinary ability.

6. High Salary or Remuneration:

- Richard N. Merkin Professor of Mathematical Finance at Caltech.

Explanation: Holding a named professorship at a renowned institution like Caltech typically involves a high salary, indicating that Dr. Cvitanic is highly valued in his field.

7. Critical Employment in the Applicant's Field:

- Director of The Linde Institute of Economic and Management Sciences at Caltech.

Explanation: Leading a major institute within a prestigious university demonstrates Dr. Cvitanic's critical role and influence in his field.

Overall Assessment:

Dr. Jaksa Cvitanic's CV provides strong evidence of his eligibility for an O1 visa. His numerous awards, prestigious memberships, extensive publication record, editorial roles, significant original contributions, high salary, and critical employment position at Caltech collectively demonstrate his extraordinary ability in the field of financial mathematics. These qualifications make him a strong candidate for the O1 visa, suggesting a high potential for approval.

Use separate tasks for query each individual items

Defined different agents and eventually summarize everything with a summarize agent:

```
crew = Crew(
    tasks = [
        identify_awards_task,
        identify_grants_task,
        identify_contribution_task,
        identify_press_task,
        identify_judging_task,
        identify_critical_employment_task,
        identify_publications_task,
        identify_high_remuneration_task,
        combine_result_task,
    ],

    agents=[CV_research_agent, summarize_agent],
```

```
process=Process.sequential,  
)
```

Each individual tasks perform very well

For example: agent is able to exhaustively enumerate the cases when the applicant judges the work of others.

Examples of Jakša Cvitanic judging the work of others in the field:

1. served on the editorial board of Frontiers of Mathematical Finance as a Co-Editor from 2021 to present.
2. served on the editorial board of Finance & Stochastics as a Co-Editor from 2000 to present.
3. served on the editorial board of Mathematics and Financial Economics from 2006 to 2020, and currently on its Advisory Board since 2021.
4. served on the editorial board of Mathematical Finance from 2013 to 2020.
5. served as an Associate Editor for Annals of Finance from 2004 to 2017.
6. served as an Associate Editor for Mathematical Finance from 2002 to 2013 and again from 2020 to present.
7. served as an Associate Editor for SIAM Journal on Financial Mathematics from 2008 to 2013.
8. served as an Associate Editor for Asia-Pacific Financial Markets from 1998 to 2002.
9. served as an Associate Editor for Glasnik Matematički from 2002 to present.
10. served as an Associate Editor for Annals of Applied Probability from 1998 to 2003.
11. served as an Associate Editor for Mathematics of Operations Research from 1999 to 2002.
12. served on the Book Series Editorial Board for Springer Briefs in Quantitative Finance from 2011 to present.
13. advised several students at various institutions, including Caltech, EDHEC Business School, USC, and Columbia University, and served on committees for many students' theses and dissertations.

Overall Assessment:

Jakša Cvitanic has a robust record of judging the work of others in his field. His extensive involvement on editorial boards, numerous roles as an associate editor, and his advisory roles for students' academic progress showcase his significant contributions and qualifications for an O1 visa. His work on these boards and committees is a strong testament to his expertise and recognition in the field of Mathematical Finance and related areas.

For critical employment:

Examples of Jakša Cvitanic having critical employment in the field:

1. Worked as the Vice-President of the Bachelier Finance Society from 2020 onwards.
2. Worked as the Director of The Linde Institute of Economic and Management Sciences from 2015/2016 to present.
3. Served as the representative for Business and Economics Management major at Caltech from 2005 to present.
4. Served on the Freshmen Admissions Committee at Caltech from 2014 to 2016.
5. Was a Member of the Division Chair Search Committee at Caltech in 2014.
6. Chaired the Search Committee for Business and Economics Management at Caltech during 2006-07, 2008-09, and 2014-15.
7. Served on the HSS Students/Faculty Committee on Undergraduate Curriculum at Caltech during 2006-07, 2008-09, and 2014-15.
8. Was a Member of the Personnel Committee at USC College from 2003 to 2005.
9. Served as the Associate Chair of the Department of Mathematics and Head of the Computational Mathematics and Statistics Section at USC from 2002 to 2005.
10. Co-Directed the Master's of Science Program in Math. Finance at USC from 1999 to 2005.
11. Was a Member of the Merit/Promotion Committee in the Department of Mathematics at USC in 2002.
12. Chaired the Committee for Restructuring the Graduate Program in the Department of Mathematics at USC from 2002 to 2003.
13. Served as the Academic Advisor for the joint Econ/Math major at USC from 2001 to 2005.
14. Was a Member of the Internal Review Committee for the Department of Finance and Business Economics at USC during 2001-02.
15. Chaired the Committee for Future Structure of the Department of Mathematics at USC in 2001.

16. Chaired the Hiring Committee for the CMS section in the Department of Mathematics at USC in 2001.
17. Co-Directed the Master's Program in Math. Finance at Columbia University from 1997 to 1999.
18. Was a Member of Columbia University's Executive Committee of Arts and Sciences Faculty during 1998-99.
19. Represented the Department of Statistics for undergraduates at Columbia University from 1994 to 1998.

Overall Assessment:

Jaksa Cvitanic's extensive history of holding critical roles in prestigious organizations such as Caltech, USC, and Columbia University, along with his leadership positions in various committees and academic programs, demonstrate his extraordinary ability and significant impact in the field of economic and management sciences. His roles as Vice-President, Director, Associate Chair, and various committee leadership positions underscore his essential contributions and influence on the advancement of his field. These qualifications strongly support his eligibility for an O1 visa.

For memberships:

Memberships in prestigious associations for Jakša Cvitanic:

1. Vice-President of the Bachelier Finance Society
 - The Bachelier Finance Society is a leading international association in the field of mathematical finance. It is known for its rigorous standards and contributions to the advancement of financial mathematics.
 - Serving as Vice-President of this prestigious society demonstrates Jakša Cvitanic's extraordinary ability and recognition by peers as a leader in the field.
2. Member of the Division Chair Search Committee, Caltech
 - Being selected as a member of the Division Chair Search Committee at Caltech highlights the applicant's esteemed status within an elite institution. Caltech is renowned globally for its high academic and research standards.
 - This membership indicates that the applicant is trusted with significant responsibilities, reflecting his extraordinary competence and leadership in his field.

Overall Assessment:

These memberships significantly strengthen Jakša Cvitanic's O1 visa application by showcasing his active involvement and leadership roles in prestigious associations. His positions within these esteemed organizations underscore his extraordinary abilities and recognition by peers, which are critical elements for meeting the O1 visa eligibility criteria.

For awards, it lists all the awards, but can miss out the grants

Awards and Achievements for Jaksa Cvitanic:

(No NSF grants)

1. **American Statistical Association Scholastic Excellence Award** - 1992

- Awarding organization: American Statistical Association
- Brief description of the award's prestige and significance in the field: This award recognizes outstanding scholarly achievements in the field of statistics, presented by the American Statistical Association, a leading organization in the statistical sciences.
- How this award demonstrates the applicant's extraordinary ability: Receiving this award highlights Jaksa Cvitanic's exceptional contributions and scholarly excellence in statistics, showcasing his extraordinary abilities in this scientific field.

Overall Assessment:

Jaksa Cvitanic's receipt of the American Statistical Association Scholastic Excellence Award in 1992 demonstrates significant recognition of his scholarly contributions in the field of statistics. This award from a prestigious organization underscores his extraordinary ability, which aligns well with the O1 visa eligibility criteria. The award enhances his profile by highlighting his excellence and impact in his field, strengthening his application for the O1 visa.

Writing out another agent to find grants specifically, it's able to find all the grants:

Grants or fellowships for outstanding achievement or contribution for Jaksa Cvitanic:

1. NSF Grant DMS-93-19816 - 1994-1995

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

2. NSF Grant DMS-95-03582 - 1995-1998

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

3. ARO Grant DAAH04-95-1-0528 - 1995-1998

- Awarding institution: Army Research Office (ARO)
- Description: ARO grants support basic research in science and engineering. They are prestigious grants that fund high-impact scientific research beneficial to the Army.
- Relevance to O1 visa: Receiving an ARO grant indicates recognition of extraordinary research capabilities and contributions to the field.

4. NSF Grant DMS-97-32810 - 1998-2001

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

5. NSF Grant DMS 0099549 - 2001-2004

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

6. NSF Grant DMS 04-03575 - 2004-2007

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

7. NSF Grant DMS 06-31366 - 2007-2009

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

8. NSF of Croatia Grant - 2007-2008

- Awarding institution: National Science Foundation of Croatia
- Description: This grant supports high-level research in science and technology within Croatia, emphasizing international collaboration.
- Relevance to O1 visa: Receiving an international NSF grant underscores the applicant's global recognition and extraordinary research abilities.

9. NSF Grant DMS 10-08219 - 2010-2015

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

10. NSF Grant DMS-1810807 - 2018-2020

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious, awarded to support fundamental research and education in all the non-medical fields of science and engineering.
- Relevance to O1 visa: Receiving an NSF grant demonstrates recognition of extraordinary ability in research and contribution to the field.

Overall Assessment:

The numerous NSF grants received by Jakša Cvitanic highlight his recognized extraordinary ability and significant contributions to the field of mathematical finance. The prestigious nature of these grants, coupled with the international NSF grant, underscores his global recognition and outstanding achievements. These accomplishments strongly support his eligibility for an O1 visa.

For remuneration, it is able to reason from the context that the applicant has a very high chance of having a high remuneration

High Remuneration Potential for Jakša Cvitanic:

1. Direct Evidence of High Remuneration:

- No specific salary information or high-value compensation packages were mentioned in the CV.

2. Indirect Indicators of High Earning Potential:

- ****Positions****: Jakša Cvitanic holds prestigious academic positions, including:
 - Richard N. Merkin Professor of Mathematical Finance at Caltech (since 2013)

- Professor of Finance at EDHEC Business School
- Professor of Mathematics and Economics at the University of Southern California
- **Achievements**: Authored and co-authored numerous high-impact publications in respected journals such as the Review of Financial Studies, Journal of Economic Theory, and Management Science.
- **Institutions**: Associated with renowned institutions like Caltech, EDHEC-Risk Institute, and Columbia University.
- **Leadership Roles**: Held leadership positions and contributed significantly to academic research, indicating a high level of expertise and recognition in his field.
- **Research Contributions**: Significant contributions to fields such as dynamic contract theory, asset pricing theory, and optimal portfolio choice, which are highly valued in finance and economics.

3. Industry Comparison:

- Professors at prestigious institutions like Caltech often receive salaries well above the average for academic positions. Additionally, roles at top-tier business schools and universities typically command high salaries due to the competitive nature of such appointments.
- The combination of holding a named professorship (Richard N. Merkin Professor of Mathematical Finance) and affiliations with multiple high-ranking institutions suggests remuneration that is competitive with top industry standards in academia and finance.

Overall Assessment:

Jakša Cvitanic demonstrates a strong potential for high remuneration based on his prestigious academic positions, significant achievements, and associations with top-tier institutions. While direct salary information is not provided, the indirect indicators strongly support his eligibility for an O1 visa under the high salary or remuneration criterion. His expertise and recognized contributions to finance and economics further bolster his case, indicating that he commands or has the potential to command a high level of earnings in his field.

Publications:

Publications for Jakša Cvitanic:

Count: Numerous publications listed in various journals and conferences.

Citation: Citation count will need to be obtained from Google Scholar profile.

Notable Publications:

- J. Cvitanic, Z. Wiener, and F. Zapatero (2008) "Analytic pricing of employee stock options", Review of Financial Studies, 21, 683-724.

- J. Cvitanic, V. Polimenis, and F. Zapatero (2008) "Optimal Portfolio Allocation with Higher Moments", *Annals of Finance*, 4, 1-28.
- J. Cvitanic, L. Goukasian, and F. Zapatero (2007) "Optimal Risk Taking with Flexible Income", *Management Science*, 53, 1594-1603.
- J. Cvitanic and J. Zhang (2007) "Optimal Compensation with Adverse Selection and Dynamic Actions", *Mathematics and Financial Economics*, 1, 21-55.
- J. Cvitanic, D. Prelec, B. Riley, and B. Tereick (2019) "Honesty via Choice-Matching", *American Economic Review: Insights*, 1, 179-192.

Overall Assessment:

Jakša Cvitanic's extensive publication record in highly reputed journals demonstrates his extraordinary ability in the field of Mathematical Finance and Economics. His numerous publications, including several impactful and highly cited papers, indicate a significant contribution to the field. This strong publication and citation record would greatly strengthen his O1 visa application by showcasing his recognition and influence in his area of expertise.

Original contributions:

Original Contributions of Major Significance for Jaksa Cvitanic:

1. Development of Joint Economics-Mathematics B.S. Degree (Co-developer)

- Description: Co-developed the Joint Economics-Mathematics B.S. degree at USC.
- Significance: This new degree program integrates economics and mathematics, providing a multidisciplinary approach to education in these fields.
- Evidence of Recognition: The establishment and continuation of this degree program at a reputable institution like USC demonstrate its acceptance and value.
- Relevance to O1 Visa: Demonstrates extraordinary ability by contributing to the development of a unique and influential educational curriculum.

2. Development of M.S. in Mathematical Finance (Co-developer)

- Description: Co-developed the M.S. in Mathematical Finance at both USC and Columbia University.
- Significance: This program bridges the gap between mathematics and finance, equipping students with quantitative skills critical for financial modeling and analysis.
- Evidence of Recognition: The program's adoption by two prestigious universities highlights its importance and success.
- Relevance to O1 Visa: Illustrates extraordinary ability by creating an advanced, interdisciplinary educational program that has been widely recognized and implemented.

3. Publishing Influential Research Papers

- Description: Authored numerous research papers in areas such as asset pricing, contract theory, and financial mathematics.
- Significance: These papers contribute to the theoretical foundations and practical applications in the fields of finance and economics.
- Evidence of Recognition: Many of these papers are published in high-impact journals and have influenced subsequent research and practices within the field.
- Relevance to O1 Visa: The extensive and impactful publication record demonstrates the applicant's extraordinary ability and significant contributions to their field.

Overall Assessment:

Jaksa Cvitanic's original contributions, including the development of interdisciplinary degree programs and the publication of influential research papers, significantly strengthen his O1 visa application. These contributions demonstrate his extraordinary ability to innovate in the fields of economics, finance, and mathematical education. The most impactful contributions are the development of new educational curricula that have been adopted by prestigious institutions, underscoring his role as a leading figure in his field.

For published materials

Published Material About Jakša Cvitanic:

1. No specific press coverage, feature articles, interviews, or media appearances discussing Jakša Cvitanic's work or achievements were identified in the provided CV.

Overall Assessment:

The absence of identifiable press coverage in the provided CV represents a gap in the evidence needed to support Jakša Cvitanic's eligibility for an O1 visa under the criterion of published material about the applicant in professional or major trade publications or other major media. To strengthen the O1 visa application, it would be beneficial to gather and include any relevant press coverage, such as feature articles in major newspapers or magazines, interviews in industry-specific publications, television or radio appearances, online articles from reputable sources, press releases from institutions, book reviews, or coverage of presentations at major conferences.

In combining the results, in one run, I just invoked two tasks, and it is able to combine the itemized results very clearly:

O1 Visa Eligibility Analysis for Jaksa Cvitanic

1. Awards and Achievements

- American Statistical Association Scholastic Excellence Award, 1992.

2. Grants and Fellowships

1. NSF Grant DMS-93-19816 - 1994-1995

- Awarding institution: National Science Foundation (NSF)
- Description: NSF grants are highly competitive and prestigious awards that support fundamental research in various fields of science and engineering. They are recognized for their rigorous selection process and significant contribution to advancing knowledge.

- Relevance to O1 visa: Receiving an NSF grant demonstrates Jaksa Cvitanic's extraordinary ability in his field, highlighting his capacity to conduct impactful research that meets high standards of excellence.

2. NSF Grant DMS-95-03582 - 1995-1998

- Awarding institution: National Science Foundation (NSF)
- Description: This grant underscores the recipient's ability to consistently secure funding for high-quality research projects, further establishing their reputation as a leading expert.

- Relevance to O1 visa: The repeated awarding of NSF grants to Jaksa Cvitanic showcases his sustained excellence and noteworthy contributions to his field, reinforcing his status as an individual of extraordinary ability.

3. ARO Grant DAAH04-95-1-0528 - 1995-1998

- Awarding institution: Army Research Office (ARO)
- Description: ARO grants support research that advances the scientific knowledge needed for the U.S. Army's future operational environment. These grants are prestigious and indicate high-level research capabilities.

- Relevance to O1 visa: The awarding of an ARO grant to Jaksa Cvitanic highlights his ability to contribute to important and high-impact research, demonstrating his exceptional talent and expertise.

4. NSF Grant DMS-97-32810 - 1998-2001

- Awarding institution: National Science Foundation (NSF)
- Description: As previously mentioned, NSF grants are a testament to the recipient's research excellence and potential for significant contributions to their field.

- Relevance to O1 visa: This grant further solidifies Jaksa Cvitanic's standing as a researcher of extraordinary ability whose work is recognized and supported by leading institutions.

5. NSF Grant DMS 0099549 - 2001-2004

- Awarding institution: National Science Foundation (NSF)
- Description: This grant continues to demonstrate the recipient's ability to secure competitive funding and contribute valuable research to their field.
- Relevance to O1 visa: The consistent recognition and support from the NSF emphasize Jaksa Cvitanic's extraordinary abilities and significant impact on his discipline.

6. NSF Grant DMS 04-03575 - 2004-2007

- Awarding institution: National Science Foundation (NSF)
- Description: This grant signifies ongoing recognition of the recipient's high-quality research and contribution to advancing knowledge in their field.
- Relevance to O1 visa: The continued success in obtaining NSF grants illustrates Jaksa Cvitanic's extraordinary talent and sustained excellence in research.

7. NSF Grant DMS 06-31366 - 2007-2009

- Awarding institution: National Science Foundation (NSF)
- Description: This grant is another indication of the recipient's outstanding research capabilities and the ability to produce work that meets high standards.
- Relevance to O1 visa: This grant further reinforces Jaksa Cvitanic's extraordinary ability, as recognized by one of the most prestigious funding organizations.

8. NSF of Croatia Grant - 2007-2008

- Awarding institution: National Science Foundation of Croatia
- Description: This grant supports high-impact research projects in Croatia, recognizing the recipient's contribution to advancing scientific knowledge within the country.
- Relevance to O1 visa: Receiving international recognition through the NSF of Croatia grant demonstrates Jaksa Cvitanic's global impact and extraordinary ability in his field.

9. NSF Grant DMS 10-08219 - 2010-2015

- Awarding institution: National Science Foundation (NSF)
- Description: This grant underscores the recipient's ability to continue producing high-quality, impactful research over an extended period.
- Relevance to O1 visa: The long-term support from the NSF highlights Jaksa Cvitanic's sustained excellence and extraordinary ability in his field.

10. NSF Grant DMS-1810807 - 2018-2020

- Awarding institution: National Science Foundation (NSF)
- Description: This grant supports the recipient's ongoing research efforts, further establishing their reputation as a leading expert in their field.

- Relevance to O1 visa: The recent recognition by the NSF underscores Jaksa Cvitanic's continued relevance and extraordinary ability in conducting cutting-edge research.

3. Judging the Work of Others

- No information provided from the original analyses.

4. Memberships in Prestigious Associations

- No information provided from the original analyses.

5. Critical Employment

- No information provided from the original analyses.

6. High Remuneration

- No information provided from the original analyses.

7. Publications and Citations

- No information provided from the original analyses.

8. Original Contributions of Major Significance

- No information provided from the original analyses.

9. Published Material About the Applicant

- No information provided from the original analyses.

Overall Candidacy Evaluation:

Rating: Medium

Justification:

Jaksa Cvitanic has a strong record of securing prestigious NSF and ARO grants, which demonstrates his extraordinary ability and significant contributions to his field. These grants are highly competitive and are a clear indication of his sustained excellence in research. However, the current assessment lacks detailed information in other critical areas such as judging the work of others, memberships in prestigious associations, critical employment, high remuneration, publications and citations, original contributions of major significance, and published material about the applicant. These additional criteria are essential for a comprehensive evaluation of his O1 visa eligibility.

Recommendation:

To strengthen the O1 visa application, it would be beneficial to gather and present detailed evidence in the areas of judging the work of others, memberships in

prestigious associations, critical employment, high remuneration, publications and citations, original contributions of major significance, and published material about the applicant. Providing a well-rounded portfolio that addresses all O1 visa criteria will significantly enhance the chances of a successful application.