Anael Kuperwajs Cohen

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Education

2017–2021   **Macalester College (Saint Paul, MN)**.
B.A. in Computer Science and Applied Mathematics and Statistics
Concentration in Cognitive Science
Honors in Computer Science, Summa Cum Laude

Relevant Coursework
Computer Science: Network Science, Collective Intelligence, Introduction to Artificial Intelligence, Computer Systems Organization, Algorithm Design and Analysis, Software Design and Development, Theory of Computation, Object-Oriented Programming and Data Structures
Applied Mathematics and Statistics: Advanced Data Science in R, Probability, Statistical Machine Learning, Discrete Mathematics, Linear Algebra, Applied Multivariable Calculus III, Introduction to Statistical Modeling
Cognitive Science and Psychology: Developmental Psychology, Educational Psychology, Cognitive Neuroscience, Comparative Cognition, Philosophy of Mind, Justice Race and Class, Child Development (*Yale University*)

Research Experience

August 2022 - present   **Technical and Data Study Coordinator**, *Cognition, Aging, and Technology Lab, University of Minnesota and Minneapolis VA Health Care System*, Minneapolis, MN.
- Research on detecting early cognitive decline in older adults using unobtrusive technology to monitor changes in daily living and activities.
- Maintaining the consistent functioning of technology used in the study.
- Supervising the proper handling, organization, and sharing of data.

July 2021 - June 2022   **Postgraduate Research Fellowship**, *Edward Zigler Center in Child Development and Social Policy, Yale University*, New Haven, CT.
- Research on the mental health climate of early education and childcare settings.
- Infant-Toddler Climate of Healthy Interactions for Learning Development (I-T CHILD) study on the role of early childhood mental health consultation on promoting positive social and emotional learning.
- Statistical analysis of how childcare providers' mental health is affected by the COVID-19 pandemic.

June 2020 - June 2021   **Computer Science Education Research Assistant**, *Code and Cognition Lab, University of Washington*, Seattle, WA.
- Studied factors that influence the social help-seeking behavior of introductory programming students.
- Conducted semi-structured interviews, performed thematic analysis and qualitative coding on the ensuing transcripts.
- Research extended into an undergraduate honors thesis.
- Member of the Design. Use. Build. (DUB) community: the intersection of HCI and Design.

Summer 2019   **Interdisciplinary Software Engineering Research Assistant**, *Institute for Software Research, Carnegie Mellon University*, Pittsburgh, PA.
- Penrose project: turns simple mathematical notation into diagrams.
- Implemented Penrose Tutor: problem sets that utilize visualizations for math education.
- Studied effective tutorial designs for programming languages.
- Used JSX and CSS in React.

Summer 2018   **Virtual Classics Research Assistant**, *Macalester College*, Saint Paul, MN.
- Virtual reality programming in C# with Unity.
- Implementation and evaluation of 3D region-of-interest selection techniques.
- Used HTC Vive head mounted VR display, wireless Vive controllers, and a laser-based tracking system.
- Clare Boothe Luce grant recipient.

Publications

Peer-Reviewed Papers.

○ Patel, K., Shafiq, M., Malik, A., Cobanoglu, A., Klotz, M., Humphries, J., Lee, A., Murray, T., Wilkinson, D., Yildirim, I., Elharake, J., Diaz, R., Rojas, R., **Kuperwajs Cohen, A.**, Omer, S., Gilliam, W. (2022). Relationship Between the Use of Nonpharmaceutical Interventions and COVID-19 Vaccination Among U.S. Child Care Providers: A Prospective Cohort Study. *Vaccine*. PDF

○ Elharake, J., Shafiq, M., Cobanoglu, A., Malik, A., Klotz, M., Humphries, J., Murray, T., Patel, K., Wilkinson, D., Yildirim, I., Diaz, R., Rojas, R., **Kuperwajs Cohen, A.**, Lee, A., Reyes, C., Omer, S., Gilliam, W. (2022). Prevalence of Chronic Diseases, Depression, and Stress among U.S. Child Care Professionals during the COVID-19 Pandemic. *MedRxiv*. PDF

○ **Kuperwajs Cohen, A.**, Oleson, A., & Ko, A. (2021). Factors Influencing the Social Help-Seeking Behavior of Introductory Programming Students. *ACM Transactions on Computing Education (under review)*. PDF

○ Jackson, B., Beckham, K., **Kuperwajs Cohen, A.**, Heggeseth, B. (2019). Comparing Convex Region-of-Interest Selection Techniques for Surface Geometry. *ACM Symposium on Virtual Reality Software and Technology*. PDF

Workshop Papers.

○ **Kuperwajs Cohen, A.**, Ni, W., & Sunshine, J. (2019). Designing Declarative Language Tutorials: a Guided and Individualized Approach. OASIcs, Vol. 76, *PLATEAU*. PDF

Talks

April 2021 **Factors Influencing the Social Help-Seeking Behavior of Introductory Programming Students**, *Macalester College*, Saint Paul, MN.
○ Undergraduate honors thesis defense.

October 2019 **Designing Declarative Language Tutorials: a Guided and Individualized Approach**, *PLATEAU*, New Orleans, LA.
○ Workshop on evaluation and usability of programming languages and tools.

Honors, Awards, and Recognition

2021 **Camp Endowed Prize in Computer Science**.
○ Awarded to a senior major in the department for meritorious academic performance in computer science and for contributions to department culture and community.

2021 **Phi Beta Kappa, Epsilon of MN**.
○ Election to Phi Beta Kappa recognizes outstanding scholarship in the liberal arts and sciences. Election is limited to the top twelve percent of the senior class. All candidates must have demonstrated knowledge of mathematics and of a foreign language at least minimally appropriate for a liberal education.

2018 **The CRC Award**.
○ *Handbook of Chemistry and Physics* awarded for outstanding achievement in first-year chemistry.

2017-2021 **Macalester College Dean's List**.

2017-2021 **DeWitt Wallace Distinguished Scholar**.
○ 4-Year Merit Scholarship.

2017 **Woodinville High School Valedictorian**.

2016 **PSAT National Hispanic Recognition Award**.
○ Granted to students who score in the top 10% of their state on the PSAT.

2016 **AP Scholar with Distinction**.
○ Granted to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams.

Work Experience

2018–2021 **Computer Science and Statistics TA**, *Macalester College*, Saint Paul, MN.
- Object-Oriented Programming and Data Structures (COMP 124), Statistical Machine Learning (STAT 253), Introduction to Statistical Modeling (STAT 155), Theory of Computation (COMP/MATH 361).
- Instruct the intro to Java course lab period.
- Grade class projects, give feedback on assignments, and provide constructive support for students during weekly office hours.

2020–2021 **Department of Mathematics, Statistics, and Computer Science Office Assistant**, *Macalester College*, Saint Paul, MN.
- Organize, advertise, and lead community events.
- Assist in completing daily administrative tasks for the department.

Technical skills

Programming.
- Comfortable in Java and R. Familiar with C#, JavaScript, JSX, CSS, HTML, Python.
- Example code: GitHub @anaelkuperwajs

Software.
- Comfortable with Git, RStudio, Gephi, Microsoft Office, Box. Familiar with REDCap, Qualtrics, SPSS.

Languages.
- Fluent in English. Proficient in Spanish and Hebrew.

Service and Activities

2018-2021 **13th Street**.
- LatinX hip hop dance group.
- Founder and chair.

2018-2021 **Naming Hate**.
- Annual series of anti-hate lectures, discussions, and workshops.
- Founder and chair.