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Zumin Chen

EDUCATION

Human Development and Education: Early Childhood Concentration (M.Ed.) <i>Harvard Graduate School of Education</i> Cumulative GPA: 3.96	Fall 2022 – May 2023 Cambridge, MA
Psychology (B.A.) & Cognitive Science: Neuroscience Concentration (B.A.) <i>University of Virginia</i> Cumulative GPA: 3.878; Psychology GPA: 3.951; Cognitive Science GPA: 3.971	Fall 2019 – May 2022 Charlottesville, VA
Psychology <i>Boston College</i>	Fall 2018 – Spring 2019 Chestnut Hill, MA

RESEARCH EXPERIENCE

Full-Time Lab Manager and Study Coordinator <i>Shen Lab, University of North Carolina School of Medicine</i> Supervisor: Dr. Mark Shen	June 2023 – Present Chapel Hill, NC
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- Coordinating federally funded research studies
 - Coordinated with multiple physicians and researchers across UNC Health for meetings, reporting study progress, and scheduling clinic and assessment appointments for participating families.
 - Prepared study **progress reports** for funders including NIH and Angelman Syndrome Foundation.
 - Coordinated the longitudinal IDDRC-CSF project (Intellectual and Developmental Disabilities Research Center- Cerebrospinal fluid) including **recruiting, screening, consenting, and enrolling** families with infants who have **rare developmental genetic disabilities**.
 - Managed travel logistics for in-person research visits and clinic visits for participating families.
- Managing Shen Lab
 - Improved **lab cohesion and efficiency** by establishing regular biweekly lab meetings and ensuring smooth onboarding for new members.
 - Created **structured agendas** for each lab meeting to discuss ongoing projects, address challenges, and foster collaboration among team members.
 - **Managed and supervised** undergraduate research assistants' voluntary work, providing guidance throughout their independent research endeavors.
 - Helped with **grant writing**, and writing and managing **IRB proposals** and **modifications** based on the study grants.
- Data collection and management
 - Collected and managed **sleep data** using Emfit, Actiwatch, and daily surveys.
 - Collected and tracked infants' and adults' **biospecimen data**.
 - Assisted with **EEG acquisition** with infants with rare developmental disabilities between 6-24 months.
 - **Acquired MRI scans with infants** with developmental disabilities aged 6-24 months.
 - Wrote **behavioral assessment reports** and **MRI feedback** letters for participating families.
 - Spearheaded the quality control of extra-axial cerebrospinal fluid for **infant MRI imaging data**

Research Assistant <i>Gaab Lab, Harvard Graduate School of Education</i>	Jan 2023 – May 2023 Cambridge, MA
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Principal Investigator: Dr. Nadine Gaab

- Helped create **behavioral assessment feedback** for families
- Assisted in **fMRI scanning data collection** with young children (age: 5-7 years old)
- Checked and controlled quality of neural imaging data.
- Entered testing data into **REDCap**

Research Assistant

Sep 2022 – May 2023

Computational Cognitive Development Lab, Harvard Graduate School of Education

Cambridge, MA

Principal Investigator: Dr. Elizabeth Bonawitz

- Reached out to parents to get consents for the study
- Conducted studies with **6-8 years old** over Zoom
- **Sent payments** after studies

Research Assistant

Jan 2022 – May 2022

Living Labs, University of Virginia

Charlottesville, VA

- **Recruited** children (4-10 years old) at local children's museums for different **developmental studies** at UVA
- Obtained **consent** from the parents and **assent** from the children for study
- Conducted studies with children at the museums

Research Assistant

Jan 2021 – May 2022

BabyLab, University of Virginia

Charlottesville, VA

Principal Investigator: Dr. Tobias Grossmann

- Used **python** to help program emotion-detection, face-detection, object-detection, trustworthiness-detection, Theory of Mind task, and behavioral economic games (ultimatum and dictator games) that involve hundreds of stimuli
- Conducted **literature reviews** that identify and further explore research gaps and questions relevant to emotional and cognitive development in the first years of life
- Helped with **IRB modification**
- **Trained** two new research assistants with the lab protocols and our studies' procedures
- Conducted the cooperation study with **50+ undergraduate participants**
- Took an administrative role in contacting and scheduling participants (**200+ undergraduates**) and sending out payments after completion of the study

Research Assistant

Jan 2021 – May 2022

University of Virginia

Charlottesville, VA

Principal investigator: Dr. Shige Oishi

- Searched and compiled general research materials on topics about "embracing uncertainty," "absolutism," and "diversity in interests" during the Covid-19 pandemic
- Collecting experimental data **from 20+ participants**: Acted as **confederate** in psychological experiments that examine the correlation between the extent of help that participants received and their generosity in giving away their chances of receiving a prize
- Assisting my research mentor on a **literature review** of "textual analysis" for a paper that focusing on "psychological richness" and "difficulty"
- Presented a **poster** regarding "psychological richness" and "difficulty"

PUBLICATIONS AND PRESENTATIONS

Publications:

EA-CSF (extra-axial cerebrospinal fluid), Sleep, and Seizure in Angelman Syndrome (In preparation)

Systematic Review: Cerebrospinal Fluid in Neurodevelopmental Disabilities and Clinical Trials (In preparation)

High Prevalence of Chiari I and Cavum Septum Pellucidum in Angelman Syndrome (In preparation)

Poster Presentations:

Chen, Z., Cha, Y., Iyer, S., Zhu, A., Jeong, Y., Oishi, S.* (Feb. 2022). Psychological Richness and Difficulty: Degrees of difficulty of movies and coursework predict psychological richness. Presented at the Happiness and Well-Being Preconference at SPSP virtually.

Fulton, M., Garic, D., **Chen, Z.**, Gross, J., Xu, Y., Hecht, C., Janis, A., West, M., Capal, J., Shen, M.* & Schwichtenberg, A.* (Accepted at Journal of Purdue Undergraduate Research, April 2024). Angelman and Fragile X Syndromes - Early Sleep Patterns.

Rutsohn, J., **Chen, Z.**, Gross, J., McKinstry, R. C., Borzage, M., Zong, X., Elison, J. T., Estes, A. M., Dager, S. R., Pandey, J., Schultz, R. T., Botteron, K. N., Hazlett, H. C., Styner, M. A., Marrus, N., Pruett, J. R., Piven, J., Garic, D. *, & Shen, M. D.* (Accepted at Institute for Mathematical and Statistical Innovation, August 2024). Quantifying Flow Dynamics of Cerebrospinal Fluid in Infants with Neurodevelopmental Disabilities Using Fréchet Regression.

HONORS & AWARDS

Phi Beta Kappa (Spring 2022, University of Virginia)

Dean's List (Spring 2022, University of Virginia)

Dean's List (Fall 2021, University of Virginia)

Dean's List: First Honor (Spring 2019, Boston College)

Dean's List: Second Honor (Fall 2018, Boston College)

LEADERSHIP & VOLUNTEER EXPERIENCE

Leading Job Search Committee

Mar 2024 – June 2024

University of North Carolina-Chapel Hill, School of Medicine

Chapel Hill, NC

- Coordinated with the CIDD (Carolina Institute for Developmental Disability) Human Resources to publicly post the job.
- Reviewed applicants' resumes and deciding who to interview.
- Lead interviews for qualifying candidates

The 14th Harvard China Education Symposium, Assistant of Operating

Jan 2023 – May 2023

Harvard Graduate School of Education

Cambridge, MA

- Helped review 200 resumes and hiring volunteers and providing volunteers training.
- Assisted in maintaining CES official WeChat and Email
- Helped operations of the in-person Symposium Opening Activities and Online Activities

CSSA Mentor

Sept 2018 – May 2019

Boston College

Chestnut Hill, MA

- Created a PowerPoint aimed at international Chinese students for student orientation

- Helped organize social functions for international Chinese students to network and build community during the Chinese holidays

Gateway Mentee

Sept 2018 – May 2019

Boston College

Chestnut Hill, MA

- Participated in science courses catering to first-generation students aiming to pursue a career (or academic path) in STEM and pre-med
- Helped organize events for 30+ students and 5 professors from the program during Chinese New Year for people to network and build relationships

SKILLS

Proficient in Microsoft Word, Excel, PowerPoint, R, Python, and Qualtrics

Strong analytical skills

Strong written and verbal communication skills

Familiarity with research methods and design

Experience with java, SPSS, and Qualtrics

Experience with EEG and MRI

Experience with REDCap

Experience with managing studies on large multi-site longitudinal database (LORIS)

LANGUAGES

English (fluent); Mandarin (native speaker);