

Ryan Kruse

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EXPERIENCE

SAFEGRAPH | COMMUNITY MANAGER (CONTRACTOR)

May 2020 – Present | Placekey Community, Remote

- Provided feedback for cutting-edge research on the relationship between COVID-19, social distancing, and economic activity
- Guided researchers on data usage and assessed quality concerns
- Completed numerous projects related to YoY growth, normalization, visualization, validation, and more

KROBEL CORP | COFOUNDER

January 2018 – March 2020 | Mankato, MN

- Integrated thermal imaging technology with machine learning algorithms to develop piglet health monitor
- Coordinated fundraising negotiations, patent application, budget, and minor acquisition of the company

NATIONAL SECURITY AGENCY | SCIENCE AND TECH INTERN

Summer 2016 | Fort Meade, MD

- Earned Top-Secret security clearance with polygraph
- Implemented proof-of-concept mathematical techniques to optimize signals processing systems
- Verified intelligence benefits of mission-critical metadata

P.U.R.E. MATH | RESEARCH INTERN

Summer 2015 | Hilo, HI

- Applied Algebraic Geometry to neuroscience, to show how the brain spatially maps its environment
- Co-authored a software package on SageMath to facilitate future research in the area

PUBLICATIONS

- **Ryan Kruse** and Subhoh Alkhushayni. *Identifying Regional COVID-19 Presence Early with Time Series Analysis*. IOP SciNotes, Vol. 1, No. 2 (August 2020). doi: 10.1088/2633-1357/aba739.
- Rebecca Garcia, Luis Garcia-Puente, **Ryan Kruse**, Jessica Liu, Dane Miyata, Ethan Petersen, Kaitlyn Phillipson, and Anne Shiu. *Gröbner Bases of Neural Ideals*. International Journal of Algebra and Computation, Vol. 28, No. 04, pp. 553-571 (2018). arXiv:1612.05660.
- Ethan Petersen, Nora Youngs, **Ryan Kruse**, Dane Miyata, Rebecca Garcia, and Luis Garcia-Puente. *Neural Ideals in SageMath*. In: Davenport J., Kauers M., Labahn G., Urban J. (eds) Mathematical Software – International Congress on Mathematical Software 2018.

INVOLVEMENT

2018 – present	DREAM (Data Science Club)
2013 – present	Celebrate Me Week Volunteer Staff
2019 – 2020	Graduate Track and Field Coach, Minnesota State
2014 – 2019	Collegiate Track and Field (Captain)
2017 – 2018	Central College Pencils of Promise (Cofounder)
2015 – 2018	Math Club President/VP/Treasurer
2017	Study Abroad, Costa Rica
2015	SACNAS National Conference

EDUCATION

MINNESOTA STATE UNIVERSITY

MS IN DATA SCIENCE

December 2020 | Mankato, MN

Cum. GPA: 3.81 / 4.0

CENTRAL COLLEGE

BA IN MATHEMATICS, COMPUTER SCIENCE

May 2018 | Pella, IA

Cum. GPA: 3.74 / 4.0

SKILLS

PROGRAMMING/TECHNOLOGY

Python • R • SQL • LaTeX

Power BI • Github • AWS

OTHER

Public Speaking • Writing • Presentation
Critical Thinking • Teamwork • Leadership

GRADUATE COURSEWORK

Artificial Intelligence

Foundations of Data Science

Data Analysis and Statistics for Managers

Research Methods

Time Series Analysis and Forecasting

Big Data Systems

Data Analytics

Foundations of Cloud Computing

Machine Learning

Statistical Computing

RECOGNITION

2019	Senior Banquet Alumni Speaker
2018	Ron Schipper Leadership Award
2018	NCAA All American
2018	NCAA Postgraduate Scholarship

REFERENCES

Ryan Fox Squire	Senior Data Scientist, SafeGraph ryan@safegraph.com
Suboh Alkhushayni	Graduate Advisor, Co-author subo.alkhushayni@mnsu.edu (507) 389-2363
Jim Towey	CEO, Onset Computer Corp. jim_towey@onsetcomp.com (774) 521-9094