

# Mason Zarns

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## CONTACT

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## EDUCATION

**UNIVERSITY OF MINNESOTA**  
B.S. COMPUTER SCIENCE  
MINOR IN CHEMISTRY  
Dec 2022 | Minneapolis, MN

## STRENGTHS

### LANGUAGES

|      |            |
|------|------------|
| JAVA | PYTHON     |
| RUST | TYPESCRIPT |
| SQL  | TERRAFORM  |

### TECHNOLOGY

|         |         |
|---------|---------|
| AZURE   | SPRING  |
| AWS     | GRADLE  |
| REACT   | ANGULAR |
| DOCKER  | PYTORCH |
| ANSIBLE | GIT     |

## CERTIFICATION

**MICROSOFT CERTIFIED**  
AZURE DEVELOPER ASSOCIATE  
AZ-204 EXAM  
May 2024

## COMPETITION

**CODE42 HACKATHON**  
Aug 2022 | Minneapolis, MN

Integrated zipfile metadata extraction utility into Code42 agent, improving exfiltration risk visibility by 15%.  
Awarded first prize among 17 teams.

**OPEN MONKEY CHALLENGE**  
Dec 2022 | Minneapolis, MN

Developed novel neural net architectures, achieving 90th percentile Pose Estimation accuracy.

## EXPERIENCE

### PEARSON VUE | SOFTWARE ENGINEER

Sep 2024 - Present | Bloomington, MN

- Orchestrated enterprise Azure migration, slashing infrastructure costs by 20%, ensuring 99.7% availability across 10,000+ global test centers.
- Redesigned defect triage system, distributing responsibilities across the dev team, cutting defect resolution time by 25% and customer service escalations by 45%.
- Modernized application monitoring infrastructure, leveraging New Relic, Splunk, and Gauge, eliminating 20+ manual hours monthly and boosting system visibility by 55%.
- Authored comprehensive ramp-up documentation and troubleshooting resources, reducing developer ramp-up time by 40%.

### PEARSON VUE | ASSOCIATE SOFTWARE ENGINEER

Mar 2023 - Sep 2024 | Bloomington, MN

- Championed non-production Azure migration, designing IaC solutions and resolving integration issues to maintain aggressive project timeline.
- Spearheaded FedRAMP security compliance through automated scanning and remediation workflows, reducing vulnerability time-to-resolution by 65% and unlocking \$7M in federal contracts.

### CODE42 | CLOUD SOFTWARE ENGINEERING INTERN

May - Dec 2022 | Minneapolis, MN

- Engineered customer-controlled file retention system that dynamically manages AWS resource TTLs, cutting storage costs by 45%.
- Pioneered PR-triggered integration testing with Terraform ephemeral environments, safeguarding canary deployments.

## PROJECTS

### SETTLERS OF CATAN | AI PLAYER

2024 - Present

On a mission to deliver the world's first superhuman Catan bot. Rewrote core engine in Rust, achieving 20x speedup. Contributed 10 features to open source Catanatron, enhancing game mechanics and optimizing algorithms. Implementing advanced AI strategies (AlphaZero, Pluribus, Masked PPO). Revamping UI with Angular websockets for improved user experience.

### GESTURE RECOGNITION | WEBCAM UTILITY

Jan 2023

Implemented lightweight webcam utility to track hand gestures in real-time. Supports mouse, brightness, and volume control.  
Built using Python, Mediapipe, OpenCV.

### D\* ALGORITHM VISUALIZER | CLICK ME!

Jan 2024

Implemented interactive visualizer for the elusive D\* algorithm.  
Built using Typescript, React.