

Ethan Williams

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WORK EXPERIENCE

Trend Micro – Software Engineer, Austin, TX

February 2021 - Present

- **Kubernetes Compliance Scanning**

- Led project to scan Kubernetes cluster configurations. Designed architecture and coordinated project goals based on customer needs to ensure compliance standards.
- Built backend and in-cluster architecture and API to trigger scans on user clusters, manage scan configuration and state, and receive and store scan results.

- **Cloud Container Security**

- Designed and implemented custom security rules feature to support customer defined runtime security rules for Kubernetes clusters, forwarding security events to configurable SIEM solution.
- Built scheduled inventory collection feature to scan customer AWS ECS resource data.

- **Cloud Network Security**

- Designed and implemented scheduled scan to retrieve metrics from customer cloud infrastructure to monitor health of customer resources, stored in Redshift, aggregated in Grafana.
- Designed intern project and mentored two interns to implement Restful APIs in AWS Lambda, decreasing required number of API calls by 95%.

- **Health Analysis Tool:** Wrote React/AWS web application to analyze customer device health.

Trend Micro – Software Intern, Austin, TX

June 2020 - August 2020

- **Device Telemetry Parsing:** Built AWS Lambda API and workflow to parse unstructured customer appliance log and configuration data into JSON, aggregated in AWS Athena data lake.

SnapStream – Software Intern, Houston, TX

May 2019 - August 2019

- **Channel Filters:** Designed and created user UI filtering feature to create, edit, delete Channel Groups to manage customer recording channels in HTML, jQuery, .NET and SQL backend.

EDUCATION

The University of Texas at Austin, BS Computer Science

GPA 3.83, 2016 - 2020

PROJECTS

AI Hackathon Competition – Python, GPT-4

2024

- Designed and implemented GPT-4 based tool to update code files when given a list of breaking changes for dependencies. Led a team of 18 to integrate the tool with GitHub and CVE tracking.

Terrain A* Pathfinding – C#, Unity, Godot

2024

- Modified A* algorithm for height difference-aware pathfinding on Simplex noise terrain.

Don't Roast, 2D Game Dev Capstone – C#, Unity

2019

- Worked in team of 7 to develop 2D boss rush game.

Audemos – audemos.space – AWS (S3, Lambda), Serverless, JavaScript, HTML

2019

- Built audio sharing website with temporary file storage and audio playback.

SKILLS

Technologies: Kubernetes, Docker, Node.js, React, .NET, AWS, Serverless, Terraform, Windows, Linux, Git, Github Actions, Unity

Languages: Golang, JavaScript, Python, C#, Java, C++, C, SQL, Bash