Ethan Williams

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WORK EXPERIENCE

Trend Micro – Senior Software Engineer, Austin, TX   February 2021 - Present

- **Kubernetes Compliance Scanning** – *Golang, Serverless, AWS, Kubernetes, Helm*
  - Led project to scan Kubernetes cluster configurations. Designed AWS backend architecture and coordinated project goals based on customer needs to ensure compliance standards.
  - Built backend API and Docker image to trigger scans on user clusters, manage configuration and state, and store scan results, enabling customers to verify compliance standards on Kubernetes clusters.
- **Cloud Container Security** – *Golang, Serverless, AWS, Kubernetes, Helm*
  - Designed and implemented custom security rules feature to support customer defined runtime security rules for Kubernetes clusters, alerting customers to custom security events.
  - Built AWS backend scheduled inventory collection feature to collect and store customer resource data.
- **Cloud Network Security** – *Python, Serverless, Terraform, AWS*
  - Designed and implemented AWS backend scheduled scan to retrieve metrics from customer cloud infrastructure to monitor health of customer resources, providing information for business priorities.
  - Designed intern project and mentored two interns to implement Restful APIs in AWS Lambda, decreasing required number of API calls by 95%.
- **Device Health Tool** – *Node.js, SQL, React, Serverless, AWS*
  - Built React web app with AWS backend to analyze customer device health, empowering customer support to triage customer device issues.

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, Helm, Linux, Git, Github Actions, Unity, Godot

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