Jerry Kurtin

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Work Experience

Software Engineer Intern, The Home Depot | Austin, TX | 2022
Tools/Skills used: Golang, REST APIs, GitHub, Jira, Agile Methodology

- Designed, tested, and deployed a new cloud-hosted microservice with a RESTful API to authorize $2M/day of in-store transactions, making the payment pipeline resilient to future changes and safer to maintain
- Leveraged the Agile workflow tools Jira and Confluence to plan and communicate progress effectively

Undergraduate Researcher - Deep Learning, DIVE Lab | Texas A&M | 2021-2022
Tools/Skills used: Python, Deep Learning (DL), Machine Learning (ML), PyTorch

- Translated computer vision regularization tricks to graph neural networks, improving performance on a recent paper's weakest task by 12.38%
- Optimized a state-of-the-art deep learning model, matching reported performance with a 3.18x speed increase

Software Engineering Intern - Computer Vision, Applied Research Laboratories | Austin, TX | 2021
Tools/Skills used: Python, Computer Vision (CV), GIT, PyTorch

- Trained a convolutional neural network to classify whale calls with 94% accuracy at a navy-sponsored research lab
- Studied adversarial attacks, intentionally reducing my model's accuracy to 9% with indistinguishable input changes
- Presented my findings, placing 2nd out of 16 interns for my presentation and influencing ongoing naval contracts

Education

BS in Computer Science, Minors in Math and Statistics | Texas A&M | College Station, Texas | 2021 - 2024
GPA: 4.0 / 4.0 | Dean's List | Engineering Honors

Selected Coursework: Program Design and Concepts, Data Structures and Algorithms, Computer Organization, Programming Languages, Principles of Statistics, Discrete Math, Multivariable Calculus, Linear Algebra

Projects

1st Place, Aggies Invent for First Responders Contest | Python | Embedded Software | Sensor Fusion | Apr. 2022

- Prototyped a fully-functional smart monitoring system to provide threat alerts around police vehicles
- Utilized lidar and computer vision to track and classify objects in a 100-foot radius within .189 seconds
- Communicated complex ideas simply in a diverse team, empowering the team to place 1st out of 14 finalists

2048 Duel | JavaScript | HTML | CSS | Web Development | Algorithms | Jan. 2023

- Developed a cross-platform web game with animations, 4 game modes, and an intelligent AI opponent in 2 weeks
- Cloud-hosted my website at www.2048duel.com, achieving over 2200 visits from 194 unique users in the first week

Leadership

Logistics Officer, Aggie Competitive Programming Club | Texas A&M | 2021 - 2022

- Planned and executed 24 weekly seminars and 2 contests to teach competitive data structures and algorithms
- Allocated tasks between a team of 3 in a high-stress university-wide team contest, placing 4th out of 54 teams

Volunteer Counselor, RYLA Summer Leadership Camp | ROTARY of Texas | 2020-2022

- Led 80 high school students in leadership and emotional growth in a week-long camp with a team of 23 counselors
- Collaborated with the team through 20-hour days, learning to stay calm and supportive in high-stress environments

Skills

Programming Languages: C++ | Python | Golang (Go) | MySQL | JavaScript | HTML/CSS | Java | Bash | x86
Developer Tools: Git (GitHub, GitLab) | Agile (Scrum) | Jira | Docker | Linux
Technologies and Frameworks: PyTorch | Pandas | Pivotal Cloud Foundry | Grafana | Conda/PyPi | C++STL