William Ganucheau

william.ganucheau@gmail.com • (337) 280-9657 • http://github.com/williamg

Results-oriented engineering leader with a strong bias for action. Demonstrated history of delivering technically complex projects on schedule despite unexpected challenges and changing priorities. Strong collaboration and communication skills in addition to a deep technical background.

Experience

Seegrid - Engineering Manager *2020 - present*

- Lead a remote team of 3-6 engineers responsible for developing new customer-facing features for autonomous mobile robots
- Collaborated with Product, Design, and Sales organizations to align on requirements, priorities, schedules, and strategic direction
- Fostered engineering excellence through continuous coaching and mentorship to direct reports
- Oversaw the development and successful launch of an entirely new platform
- Contributed technically to the C++/Python codebase, in addition to participating in regular code and architecture reviews
- Responsible for triage and prioritization of incoming issues and customer requests
- Conducted regular retrospectives to continuously improve processes and outcomes
- Spearheaded initiatives to improve automated testing, build a culture of documentation, and optimize triage processes to improve visibility and efficiency

L3Harris - Autonomous Software Engineer *2017 - 2020*

Project Lead, Path Planning & Collision Avoidance

- Principal designer and developer of company's world-class real time path planning and collision avoidance system for autonomous surface vehicles. The system plans paths in real time that achieve complex mission goals while avoiding both moving and static obstacles in a way that adheres to international regulations for collision avoidance at sea (COLREGS).
- Responsible for sprint planning and management, along with mentoring/leading a team of ~5 junior developers
- For the 3 years that the project has been in development, my primary responsibilities have included:
    - Researching current state-of-the art in path planning
    - Authoring > 90% of the codebase (currently consists of over 100k lines of performant C++ code)
    - Developing tests and metrics to evaluate performance to facilitate rapid iteration and productization
- Developed Python/Javascript/MySQL-powered test visualization tool to visualize planner performance and measure regressions and improvements.
- System has been deployed to customers and exercised in a real world environment for hundreds of hours without human intervention.

Software Engineering Intern

- Developed physics-based simulator for marine vessels, enabling the testing of autonomy algorithms in a lab setting as opposed to on a physical boat, drastically decreasing the feedback loop between development iterations.
- Developed incremental synchronization protocol that greatly reduced bandwidth consumption allowing large control plans to be transferred from land to autonomous vessels.

NASA Jet Propulsion Laboratory - Software Developer Intern *Summer 2016*

- Researched and implemented several state-of-the-art planning algorithms including RRT*, RRT#, and CLRRT#.
- Implemented automated test suite in ROS & integrated with JPL's official navigation simulation environment.
- Documented work and presented results to team of researchers & project leads.

Education

Carnegie Mellon University *2014 - 2017*

B.S Computer Science, Minor in Robotics, 3.9 Cumulative GPA, Dean's list every semester, Phi Beta Kappa