

OBJECTIVE

Summer Intern in Software Engineer

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA

Feb 2018

Master of Science in Electrical and Computer Engineering, GPA: 4.0 /4.0

Related Courses: Local and Wide Area Networking (MATLAB); Wireless Access and Localization (MATLAB); Design of Software Systems (Java); Algorithms (Java/Python); Digital signal processing(MATLAB); Computer Graphic(C++).

SKILLS

Operating Systems: Mac OS X, Windows

Programming Languages: Java, Python, C++, JavaScript, MATLAB, HTML, CSS.

Applications: Eclipse, PyCharm, MySQL, Sublime, Photoshop, MATLAB, Xcode.

RELATED EXPERIENCE

Research Assistant, Worcester Polytechnic Institute (WPI), Worcester, MA, U.S.

Aug 2016 - Present

Channel Modeling and localization of drone

- Researched on simulating channel model for drone in outdoor environment.
- Implement improved Maximum likelihood estimation algorithm in drone localization.
- Compare CRLB with the performance of algorithm using MATLAB.
- Ready to submit paper.

ACADEMIC PROJECTS

Word Sweeper Game Design in Java

Aug 2016 – Dec 2016

Software System Design Project, WPI

- Built model for Word Sweeper Online Game based on Unified Modeling Language (UML) Object Oriented Model, user cases and storyboard using Java. Established server client environment by using Model-view-controller (MVC) design pattern in Eclipse for dynamic programming and simplifying the procedures of modifications.
- Developed entities in models (M), GUIs in views (V), connections, message handlers and other action listeners in controller (C) for making the program's structure more intuitive.
- Designed game's client-server using Java, which realized the connection between client and server. Developed server to receive and respond to all requests successfully with which users can play multiple games online.
- Created test cases for debugging, and wrote JavaDoc for each classes and functions as documentation to other team members.

Develop algorithms and MATLAB code to estimate derivatives of signals in the presence of noise

Signal processing project, WPI

- Use three techniques (Forward, Backward and Central difference) for mimicking the 'ideal' derivative of signal with noise.
- Use different kinds of low pass filter (IIR and FIR) to remove the noise in derivative of signal: Cheby1, Butter and Ellip are used for IIR low pass filter, Hamming and Kaiser are used for FIR filter. MATLAB functions for each derivative estimation method are programmed.
- Comparing the derivative of signal that I processed with analytic derivative of signal and doing research on how the order and cut-off frequency of a filter impact the performance of derivative.
- Comparing casual and non-casual(zero-phase) derivative estimates processing.