(619) 481-2285
pwamsley2019@gmail.com

Patrick Wamsley

pwamsley2015.github.io/portfolio
github.com/pwamsley2015

EDUCATION

Stony Brook, NY　　　　　**Stony Brook University**　　　　　**August 2015 - December 2019**

- B.S. in Computer Science, completed December 2019
- Dean's list recipient
- Relevant Coursework: Data Structures and Algorithms, Software Engineering, Design Patterns, Algorithm Analysis, Networks, Databases, User Interface Design, Comp. Architecture & Assembly, Machine Learning, Information Theory, Theory of Computation, Statistics, Calculus III, Linear Algebra, Discrete Mathematics, Graph Theory & Combinatorics

TECHNICAL SKILLS

- Languages: Java, Javascript, SQL, C++, C, Python, Zsh, Bash, R, SML, HTML, CSS
- Frameworks: React, Hibernate, JPA, OpenGL, Bootstrap, JUnit, Spring
- Tools: Git & Github, UML sequence and class diagrams, Maven, npm, IntelliJ, Eclipse, Slack, Trello, Notion
- Other: LaTeX, Excel & Google Sheets

PROGRAMMING PROJECTS

- **Personal Assistant Bot | Java, Twilio Messing API, Google Firebase**
  - Chat bot which automates daily tasks, manages my schedule, and logs task specific data
  - Dynamic IO layer
- **Majority-Minority Congressional Redistricting | Java, Hibernate, Angular**
  - Full-stack web application used to generate congressional districts to maximize the number of Majority-Minority Districts to combat partisan gerrymandering
  - Created Algorithm Step Framework to modularize Algorithm implementation
  - Implemented Graph Partitioning and Simulated Annealing Algorithm to generate optimized districts
- **pwamsley2015.github.io/portfolio | React, Bootstrap, JavaScript, HTML & CSS**
  - Personal portfolio website with Sidebar and Banner components, and responsive page navigation
- **pwamsley2015.github.io/training | React & React-Spring, Bootstrap, JavaScript, HTML & CSS**
  - Personal website with React-Spring animation, table view and media-embed components
- **MedCluster.me | Python, JavaScript**
  - Machine Learning k-means clustering algorithm applied on public emergency call data from Seattle to highlight areas where response times could be improved.
- **FIRST Robotics Competition (FRC) | Java**
  - Autonomous and teleoperated robot control
  - Implemented PID control and vector-based omni-directional drive train

WORK EXPERIENCE

- **Online Instructor | ID Tech | Current Employment**
  - One on one instruction in Javascript, Python and Java
- **Camp Counselor | RoboLink | 2017-2018**
  - Taught courses which introduced students to programming in C for external hardware

OTHER SKILLS AND PROJECTS

- Leadership and team experience:
  - Managed team of 30+ students as strategy lead on FRC team 2485
  - Mentored 20+ students in Multithreaded and Object Oriented Programming as a head programmer on FRC team 2485
- Wrote a Game Theory No Limit Texas Hold'em Poker Guide in LaTeX
- Competitive USAPL Powerlifter