# **David Szymulewski**



### **EDUCATION**

### **Master of Science in Computer Science**

University of Southern California · May 2023 · 3.8 GPA

## Bachelor of Science in Astrophysics, Mathematics and Physics | Senior Thesis

University of Wisconsin-Madison · May 2021 · 3.83 GPA

#### SKILLS

Languages: C#, C, C++, HTML, CSS, JavaScript, TypeScript, Python, SQL

Tools/Frameworks: AJAX, Angular, Bootstrap, Express.js, Flask, Git, MySQL, Node.js, REST API

**DevOps**: Agile methodology, Confluence, CI/CD, Jenkins, Jira

### **EXPERIENCE**

# Site Reliability Engineer Intern, Everbridge

June 2022 - Aug. 2022

- Monitored key product statistics by creating SOL scripts to interface with Diango and MySOL databases, tracking areas of improvement and ultimately improving user retention.
- Coordinated cross-team to address codebase bugs, improving service stability and refining user experience.

# Research Assistant, University of Wisconsin-Madison

June 2018 - December 2021

- Designed a Python code framework to automate stellar-evolution simulations and organization of outputted data on remote servers, improving productivity by as much as 100% with no loss in accuracy.
- Adapted stellar-evolution code to test hypotheses on the formation of blue-lurker stars, discovering one explanation for their existence and earning a Thesis of Distinction and the Award for Excellence in Astrophysics.
- Analyzed research data by writing data reports using Python, emphasizing communication of ideas and results.
- Mentored new team members and authored a training manual to ease the learning curve of future students.

#### **PROJECTS**

### **Events Search Web Application and iOS App**

January 2023 - May 2023

- Designed three iterations of an events-search application employing various front- and back-end technologies hosted on AWS, that allows users to find, favorite and share concerts and other events.
- Developed separate front-ends using HTML/CSS & JavaScript, Angular featuring Bootstrap classes, and Swift.
- Wrote respective back-ends using Python & Flask; and JavaScript, Node.js & Express.js.
- Enhanced application responsiveness and user experience by employing AJAX techniques to communicate with RESTful back-end servers and Ticketmaster, Spotify & Google APIs.
- Portfolio links: Version 1 (HTML/CSS, JavaScript), Version 2 (Angular) and Version 3 (iOS).

### Unity3D Video Game | Portfolio Link

January 2023 - May 2023

• Utilized Unity to program gameplay, physics and UI in C# while coordinating with development team to publish an immersive survival horror video game, earning the Best Game award in CSCI 526.

#### **Weenix Kernel Project**

• Programmed the kernel of a UNIX-based operating system in C, including process, thread and kernel memory management; a thread scheduler; a virtual file system; and virtual memory.

# **Socket Programming Project**

October 2021 - December 2021

- Implemented back-end servers in C/C++ to store social media user data and communicate via UDP with a main server that handles front-end requests.
- Wrote code that enables the main server to communicate with client-facing programs via TCP to suggest friend recommendations based on geographical proximity and mutual interests.

Personal website