

Scott Semtner

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EDUCATION

University of California San Diego

Bachelor of Science in Computer Science

Class of 2027

- Regents Scholar
- 4.0 GPA

High Tech High Mesa

4.31 GPA (4.0 UW)

San Diego, CA

Class of 2023

EXPERIENCE

Software Engineer

Summer 2023 – Present

Vivid-Hosting

Remote (LA)

- Redesigned portal with 6000 users to use **tailwind** and **alpine.js** for modern design and easy maintenance
- Added pagination, search, and filters to all table based views, reducing page load time by **10x**
- Improved the algorithm to check for ownership by support accounts, increasing query efficiency by **300x**
- Created a radio programming web interface and an efficient configuration script for the next generation FRC radio
- Deployed a server handling 1000s of switch port reset requests using **starlette**, **gunicorn**, and **nginx**
- Designed a dashboard interfacing with mobile femtocells, with quick access saving **5 hours** per week
- Developed a tool to periodically pull Cisco switch configs, remove secrets, and push to git to trace issues

Undergraduate Research Assistant

Fall 2023

Wireless Communication Sensing and Networking Group

UCSD

- Managed the transition of the lab's and professor's websites to a uniform Jekyll theme
- Customized **Jekyll** template with **Liquid** and **Sass**
- Used git submodules and **GitHub Actions** to sync shared content between sites

FIRST Robotics Competition - Manager of Controls / Software Lead

2021 – 2023

High Tech High Mesa

Team 1538

- Developed robot software in **C++** to rank **16th globally** in EPA out of 3000+ teams in 2023
- Wrote software for the team's first swerve drivetrain with the ability to follow predefined paths composed of Bézier curves in autonomous mode, automatically configured based on starting position
- Implemented custom **kinematics** and **odometry** to reduce drift in the swerve drive
- Used **state machines** and **motion profiling** to smoothly control 3 degrees of freedom on the robot's arm

PROJECTS

Video Sharing Website | *Python, Django, Oracle Cloud, HTML, JS*

Fall 2023

- Created a **Django** website to upload clips to **Oracle Cloud** object storage and allow discord message embedding with the **Open Graph Protocol** for easy sharing
- Implemented custom client side video editing with a wasm version of **FFmpeg** and JavaScript

Course Enrollment Info Discord Bot | *Go, Azure Functions, Discord*

Summer 2023

- Developed a discord bot in **Go** to display actual course enrollment data from UCSD's enrollment portal
- Automated the login and two factor auth process using the **chromedp** package to extract auth cookies
- Deployed on **Azure Serverless** functions using discord bot interactions with a webhook

UCSD Schedule to calendar converter | *Rust*

Winter 2024

- Created a web server that parses a downloaded HTML file from UCSDs enrollment system
- Converts data from the HTML file to custom data structures representing courses, including all class sessions
- Saves data to the iCal file format which is served by an **Axum** web server
- Configured and deployed to Shuttle.rs [here](#)

TECHNICAL SKILLS

Languages: Python, HTML, CSS, JavaScript, TypeScript, C++, Rust, Go

Frameworks: React, Next.js, Flask, Django, JUnit, Svelte, Astro, Jekyll

Tools: Git, Docker, VS Code, Neovim