Jacob Sommer

Dublin, CA | jacobgsommer@gmail.com | linkedin.com/in/js0mmer | github.com/js0mmer

EDUCATION

University of California, Irvine   Sep. 2021 – Dec. 2024
B.S. Computer Science
- 3.86 GPA — Dean's Honor List: Fall 2021 - December 2024

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, SQL, C, C++
Frameworks & Technologies: React, Express, pandas, NumPy, PostgreSQL, Jupyter Notebook, Git
Systems & Cloud Platforms: Linux, AWS (Lambda, CloudFront, S3)

WORK EXPERIENCE

Electric Power Research Institute (EPRI)   Palo Alto, CA
Software Developer Intern   *July 2024 – Sep. 2024*
- Provided technical support for Integrated Risk Technologies (IRT) software, assisting customers with troubleshooting and setup.
- Resolved bugs and tested new features for IRT software (written in .NET/Visual Basic).
- Automated email entry for technical support inquiries with a Python script, significantly reducing manual data-entry time.
- Built a cross-platform GUI with Python Tkinter for EPRI's Modular Accident Analysis Program, enabling efficient status tracking for program runs.

Software Developer Intern   *July 2023 – Sep. 2023*
- Developed a Jupyter Notebook-based Python application for automating probabilistic risk assessments for nuclear power plants.
- Automated calculations of importance measures and identification of safety-critical components per Nuclear Regulatory Commission guidelines, improving assessment speed.
- Leveraged in-house software for performing calculations and pandas and for streamlined data analysis and reporting.

PROJECTS

PeterPortal | *React, TypeScript, Express, PostgreSQL, tRPC, Drizzle ORM, AWS*
Project Lead, Information and Computer Sciences Student Council
- Led a team of 3-7 students in developing PeterPortal, a course discovery and planning web application for UC Irvine students.
- Restructured application infrastructure using SST and Pulumi.
- Implemented tRPC for end-to-end typesafe API calls, reducing errors and enhancing developer efficiency.
- Migrated database from MongoDB to PostgreSQL, achieving improved data consistency and faster query performance.

UCI Syllabus Finder | *SvelteKit, TypeScript, PostgreSQL, Drizzle ORM*
Personal Project
- Built a web application to search and access syllabi from previous offerings of a course, assisting in making informed course selections.
- Implemented data scraping from UC Irvine's schedule of classes, and transformed it for efficient storage and querying in PostgreSQL.

Star Tracker | *Python*
Personal Project
- Designed and built an equatorial mount using common hardware store materials, a stepper motor, and a Raspberry Pi to enable astrophotography.
- Programmed the mount to counter Earth's rotation, allowing precise tracking of nebulae, galaxies, and other deep-sky objects for long-exposure photography.