

Seth J. Tumlin

sethtumlin.com | seth@sethtumlin.com | (513) 516-5695



EDUCATION

University of Cincinnati; Cincinnati, OH
Bachelor of Science, Electrical Engineering; Minor, Mathematics; Minor, History

GPA: 3.85/4.00
Graduating 2024

WORK EXPERIENCE

Space Avionics Electrical Eng. Co-op; L3Harris; Mason, OH Continuous, Aug. 2020 – Present

- Gained experience in design engineering roles across RF, analog, and digital domains and in IRAD project engineering role
- Performed integral roles in the research and development of novel, highly critical products used in spacecraft & launch vehicles
- Served as electrical and later as project engineer in development of PNT product for highly proliferated space applications
- Led agile effort to qualify novel commercial electrical components for use in human-rated flight power systems
- Organized various on-campus recruiting opportunities for engineers to meet students and grow the company
- Worked full-time for total of 5 semesters alternating with part-time periods (~15hr/wk) when taking full-time classes

Microelectronics Digital Electrical Eng. Intern; Centauri; Fairborn, OH May. 2020 – August 2020

- Performed research in microelectronics hardware security for the Air Force Research Laboratory Sensors Directorate
- Harnessed new open-source HDL synthesis tools to generate RTL designs for RISC-V SoC ASICs to be produced on 14nm process
- Designed and integrated peripheral device models into Verilog SoC/bare-metal C testbenches for verification simulations

SKILLS & PROGRAMS

C/C++/Python/LabVIEW

Microsoft Excel/VBA

Autodesk Fusion 360 CAD/CAM

Verilog/Chisel3 HDL

HTML/CSS/JavaScript/jQuery

CNC/Manual Machining

MATLAB/Mathematica

Affinity Photo/Affinity Design

Prototype PCB Production

Multisim/LTspice/PSpice

Cadence ASIC EDA Suite

Woodworking/Light Metalworking

PADS/Xpedition/EAGLE

LaTeX Typesetting/Zotero

Soldering/Hot Air Rework

AREAS OF FORMAL TECHNICAL KNOWLEDGE & PRACTICE

Agile avionics design and development

Electronic circuit worst case, stress, and FMEA analyses

High reliability/ruggedized hardware design/test

High energy-density electronic power systems

Trusted and assured microelectronics/SoCs

Spacecraft/launch vehicle avionics development

Space industry development/qualification processes

Precision position, navigation, and timing systems

AREAS OF INFORMAL TECHNICAL KNOWLEDGE & PRACTICE

COTS software-defined radio

Robotics electrical, software, and mechanical design

Miniaturized embedded control systems

Website development (sethtumlin.com)

Optoelectronics/visual effects electronic systems

3D mechanical modeling, printing, and rendering

UNIVERSITY ORGANIZATIONS + LEADERSHIP

CEAS Tribunal – Treasurer, Chief-of-Staff 2019 – Present

- Elected as Treasurer 12 consecutive semesters, managing large budget used to improve engineering student experience
- Led or assisted in production of numerous CEAS Tribunal activities such as UC Career Fair, CEAS EXPO, and more

IEEE – Student Member, Member of various IEEE societies 2019 – Present

- Membership in Aerospace & Electronics Systems, Antennas & Propagation, and Communications Societies
- Participated in campus IEEE section meetings, seminars, and talks featuring industry and research experts

CubeCats – Project Lykoi Communications Team Lead, LEOPARDSat-1 Power Team 2019 – 2021

- Led payload communications team for CubeCats' first year student program in developing high-altitude balloon radio system
- Designed power system architecture for 1U LEO cubesat to investigate ability of materials to reduce ionizing radiation effects

COMMUNITY INVOLVEMENT

Bearcat Coders Tutor 2023 – Present

- Tutored Cincinnati Public Schools high school students weekly in programming and information technology STEM classes

Harrison High School Industry Advisory Council 2020 – Present

- Assisted in career preparation of high school students through speaking engagements, mock interviews, and more

Hamilton County 4-H Alumni Volunteer 2019 – Present

- Served as Junior Member on Hamilton County Fairboard and provided volunteer time, creative services, and mentorship