Jonathan Bayless

me@jonathanbayless.com • https://jonathanbayless.com

A well-rounded software developer focusing on embedded software and mobile app development with a background in electronics and controls systems.

Employment

Carrier Corporation
Graduate Hire Program - Firmware Developer, Scrum Master *May 2019–Present*

– Led Sprint Planning Meetings, Daily Standups, and Retrospectives as Scrum Master to maximize team productivity
– Ensured on-time and successful product launch as a subject matter expert in System Control and Diagnostics domains
– Led team of 20 in a transition to a version control process that improved dev productivity and aligned better with business goals
– Supported recruiting efforts by interviewing candidates and acting as Ambassador for Grad Hire Program in Indy office
– Resolved defects and new feature tickets at highest velocity in team

The Boeing Company
F15 Mission Processing Software Infrastructure Intern *May 2018–August 2018*

– Added support for new systems and communication protocols to improve coverage of existing logging systems
– Revamped RTOS frame analysis tool to aid in threading use and prevent mission-affecting overframing
– Rewrote Ada parser for flight test messages in Python to support new message spec and cut technical debt
– Fixed bugs in build scripts and test environments

Rolls-Royce Corporation
Electrical Test Engineering Intern *May–August 2016, May–August 2017*

– Designed and implemented new controls algorithm that improves performance over PID
– Created VBA tool for parsing .ini config files into Excel sheet that became standard for collaboration with mechanical teams
– Validated signal configuration for European test stands in QNX based HMI software

Education

Purdue University **Graduated May 2019**
Bachelor of Science in Electrical Engineering, Minor in Organizational Leadership

Ancillary Projects

auToDo
Co-Founder, CEO *June 2019–Present*

– Created a cross-platform mobile application with Flutter for tracking routine car maintenance tasks
– Led marketing campaigns, SEO efforts, and customer engagement to grow user base
– Used Firebase authentication and NoSQL database technologies with BLoC state management methodology

Purdue ACM SIGBots
President, Vice President *April 2016–April 2018, April 2018–April 2019*

– Developed a variety of Kalman Filters, PID controls, path planning, and odometry for mobile robots
– Placed 1st in World Competition Rankings and 4th in the World Programming Skills
– Increased users of team's RTOS/Dev Environment from 200 to 2000+ as kernel developer and UX/API designer

Association for Computing Machinery
President *April 2018–April 2019*

– Coordinated team meetings and events, handled team finances and maintained relationships with sponsors
– Led four Special Interest Groups (SIGs) in areas of App Development, AI, Robotics, and Game Development

Technical Skills

Programming Languages (Proficient): C, C++, Python, MATLAB, Dart

Programming Languages (Knowledgeable): C#, Ada, Arm Assembly, (S)CSS, Javascript/Typescript/NodeJS, Kotlin, Swift

Programming Skills: QNX/Unix/Linux environments, Git, CI/CD, IBM Rational Jazz Suite (DOORS), GDB, SQL, Bash

Other Software Skills: LTSpice/NGSpice, KiCad, CATIA, Autodesk Inventor/Fusion, Adobe Illustrator

Controls Skills: Kalman filtering (EKF/UKF), State Space control, AI autotuning for PID, Pure Pursuit, Spline path planning

Other: Soldering, MIG welding, plasma cutting, 3D printing, Wood shop equipment, CNC