



# JOSEF MACERA

Pittsburgh, Pennsylvania

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## Education

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### Carnegie Mellon University

*Bachelor of Science, Electrical & Computer Engineering*

**Aug. 2023 – Present**

*Pittsburgh, Pennsylvania*

## Experience

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### Pipeline AI

*Full Stack Developer*

**Jul. 2023 – Oct. 2023**

*Remote*

- Designed interactive and mobile user interfaces for an AI sales integration platform in Next.js, React, and Tailwind.
- Handled business and payment logic for users with Stripe and modified AI-based content generation to significantly improve load times

### Arafa Tech Foundation

*Chief Technical Officer*

**Feb. 2023 – Sept. 2023**

*Remote*

- Led a team of 10 developers to build the organization's Discord bot, course platform and utility software.
- Spearheaded a mentorship program with 12 members to match aspiring developers with 3 experienced software engineers in the industry. Held weekly meetings to establish learning plans and track progress.
- Held weekly workshops and wrote blogs on various programming topics.

### Pacific Mist Music

*Private Music Teacher*

**Aug. 2021 – Jul. 2023**

*Reno, Nevada*

- Taught piano and guitar at homes and schools to 9 elementary/middle school students.
- Developed lesson plans and coordinated with parents on performance opportunities. Raised money for local elementary schools through lessons.

### School Simplified

*Chief Information Officer*

**May 2022 – Feb. 2023**

*Remote*

- Organized the IT department into three teams and conducted recruiting for four leadership positions; held regular meetings with team managers and developers.
- Coordinated with other corporate officers and executive directors in assisting with rebranding and company restructuring to optimize team efforts and resource allocation.

## Projects

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**Spellword** | *Nuxt, Tailwind, Nest.js, Prisma, PostgreSQL, Railway, Tauri* | [spellword.xyz](https://spellword.xyz)

**Apr. 2023**

- Developed a realtime competitive web-based game designed to encourage vocabulary acquisition in an entertaining way.
- Implemented WebSockets and JWT authentication-based REST APIs adhering to OpenAPI standards.
- Created CI/CD workflows to automatically build native executables for all desktop platforms and Android on new releases with Tauri.
- Published to Steam and used Capacitor to build native Android/iOS executables. Won 1st place in Game Applications at Nevada FBLA.

**Oinkers** | *Vue, Capacitor, Heroku, JavaScript*

**Nov. 2020**

- Created an interactive finance management app. for young adults and teenagers. Deployed on Google Play.
- Hosted multiple VMs on Google Cloud Platform to serve the backend API, written in TypeScript.

## Community Involvement

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### ScottyLabs

*Member, Tech Committee*

**Aug. 2023 – Present**

*Carnegie Mellon University*

### Tartan Autonomous Underwater Vehicle Team

*Member, Electrical*

**Aug. 2023 – Present**

*Carnegie Mellon University*

### Robotics Club

*Co-Founder*

**Aug. 2022 – May 2023**

*Damonte Ranch High School*

- Designed, programmed, and built VEX robots following the engineering design process.
- Organized team supplies and created funding opportunities from local universities and state programs. Raised over \$3000 for competition costs and building materials.
- Won 3 local competitions and competed in the VEX Robotics World Championship alongside the JROTC team.
- Travelled to local middle/elementary schools to recruit members and promote STEM engagement in school

## Technical Skills

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**Languages:** Python, TypeScript, C++, HTML/CSS, SQL

**Technologies/Frameworks:** Linux, GitHub, Nuxt / Vue, React, TailwindCSS