

Arthur Pachachura

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GitHub: <https://github.com/smo-key>

EDUCATION

2008 – 2012

Kealing Middle School – Magnet Program

Austin, Texas

2012 – present

Liberal Arts and Science Academy

Austin, Texas

ACTIVITIES

2009 – present

Boy Scouts of America – Troop 448

3 hrs/week

Chaplain's Aide (2010-2011)

20 weeks/year

- Offered prayer during scouting events and religious services

Instructor (2011-present)

- Advanced other scouts to higher ranks
- Taught merit badges to large and small groups, including the Robotics merit badge

2011 – 2013

Mathnasium Chess Club

3 hrs/week

Active Participant

20 weeks/year

- Participated in local and online tournaments and briefed younger students on chess strategy and skill

2012 – present

Bethany Lutheran Church

2 hrs/week

Acolyte

6 weeks/year

- Participated in religious service and provided aid to the pastors

2012 – 2013

LASA Orchestra

4 hrs/week

Philharmonic Orchestra, First Violin

20 weeks/year

- Played at every concert and supported other instrument players

2012 – present

LASA Robotics

12 hrs/week

Team Lead (2012-2013, elected)

40 weeks/year

- Organized the team into cooperative sub-teams for build, programming, driving, and electronics
- Worked with sub-team leads to build and maintain an effective team strategy
- Participated in the build of the robots

Programming Team Lead (2013-present, elected)

- Created an effective sub-team strategy for building and deploying code on remote systems
- Used Gantt charts and timetables to organize team programming duties
- Implemented team code version control via Git

Website Manager (2013-present)

- Wrote and uploaded content for the robotics website
- Maintained file sharing and version control

2013 – present

FIRST Robotics

Volunteer

- Volunteer yearly at the FIRST World Championship, plan to volunteer for more events in the near future

Robot Inspector

- A position no freshman has received before
- Inspected and evaluated incoming teams' robots

Field Control System Operator

- A position no freshman has received before
- Ran a match field, recorded specific observations about field problems, diagnosed router inefficiencies and disconnections, and provided technical aid to other robotics teams

36 hrs/week

1 week/year

**HONORS &
AWARDS**

2012	BSA Polar Bear Camping Award
2012	BSA UT Merit Badge University
2012	BSA National Youth Leadership Training
2012	BSA Lost Pines Summer Camp
2013	Full Orchestra UIL First Place
2013	BSA Life Scout
2013	FIRST World Championship First Year Volunteer
2013	FIRST World Championship Star Volunteer Pin
2014	FIRST Robotics FTC Inspire Award
2014	FIRST Robotics FTC Think Award
2014	FIRST Robotics FRC Engineering Inspiration Award

SKILLS, TALENTS & ACHIEVEMENTS

Programming and Electrical Engineering

- Fluent in C, C++, C#, and Visual Basic
- Built artificial intelligence for several classic board games
- Built custom Linux operating system and deployed on home computers and Raspberry Pi
- Building mathematical 3D graphics engine
- Built operating system for a TI-84 using Z80 Assembly and TI-BASIC
- Building Raspberry Pi home theater and server system
- Thorough knowledge of Notepad, LaTeX, and Visual Studio

Engineering Drafting and Design

- Wrote 40-page Final Design Report (FDR) for 9th grade engineering class
- Solve engineering problems on a regular basis
- Contribute to annual LASA Robotics Drop Dead Design Day (D4)
- Knowledge of CAD software SolidWorks and general design principles

Leadership

- Boy Scouts of America Life Scout with National Youth Leadership Training
- Lead robotics teams and teach Scouts programming and engineering principles
- Lead and manage teams large and small on a regular basis