Hiring Software Developers at AirWorks

Mia Petkova and David Morczinek
Mia and David

- David Morczinek
  - CEO and Co-Founder of AirWorks
  - MBA at MIT Sloan in 2018, M.S. in Aerospace Engineering in Hamburg, Germany in 2012
  - 5 years experience at Airbus building and selling planes

- Mia Petkova
  - Software Engineer at AirWorks
  - MS MIT Media Lab, BA McGill University
  - Background in Software Development and Geospatial Sciences
What does AirWorks do?

- **CORE:** Our AI powered software autonomously converts 2D and 3D aerial data into CAD models
- **VISION:** We’re building an automated aerial survey platform for civil engineering
- **USE:** Our technology speeds up the surveying process by a factor of 100+
- **VALUE PROP:** We deliver real-time insights to developers and engineers in the construction industry that reduce risk for new projects and save millions of dollars

AirWorks’ mission is to make aerial data accessible and useful to decision makers in the built environment.
At AirWorks, we’ve hired 6 software developers for various roles in the past 12 months:

- Full-Stack Developer
- Front End Developer
- Machine Learning Engineer
- GIS Software Developer
- VP of Engineering
Overview of Hiring/Interview Process

The interview process for each role is different, but essentially always includes the following stages:

1. Resume Review (LinkedIn, University Job Boards, Angelist, etc.)
2. Phone Call with hiring manager or recruiter
3. Take home exercise
4. Live Programming Challenge
5. Behavioral interview with management

- 100 submissions
- 50 Calls
- 20 Exercises
- 7 Programming Tests
- 5 Interviews
Sources of Candidates

AirWorks always uses multiple channels of recruiting. The most well known are the following:

1. Online Job Boards
2. Company and Investor Websites
3. University job boards and career fairs (mostly for other majors)
4. Connections
5. Recruiters and headhunters (mostly more senior roles)
Hiring Process – Step 1 and 2

1. **Resume Review (LinkedIn, University Job Boards, AngelList, etc.)**
   - Usually hiring manager or engineer will scan resumes
   - Objective: Validate Qualifications, Experience, Availability, Visa Status

2. **Phone Call with hiring manager or recruiter**
   - Hiring manager or recruiter will validate written resume by phone
   - Objective: Validate Qualifications, Experience, Availability, Visa Status
Hiring Process – Step 3

3. **Take home exercise**

   Usually a 1 or 2 pager with an exercise specific to the role you’re interviewing for.

   - **ML**: Develop ML architecture for a given ML problem
   - **Front End**: Develop simple leaflet API and send results
   - **Full Stack**: Define AWS web architecture for processing platform

   **Objective**: Test skill and interest, filter out committed candidates
Hiring Process – Step 4

4. Live Programming Challenge
   On the phone or in person interview with programmer

   **ML:** Python programming exercise
   **Front End:** JavaScript programming exercise
   **Full Stack:** JavaScript programming exercise

   Objective: Test skill and interest, filter out committed candidates
Live Programming Challenge

- 3-4 questions
- Warm-up question, followed by more in-depth questions relevant to the work we do (e.g. image processing)
- Focus on approach to problem-solving, rather than getting a perfect answer
Live Programming Interview Tools
Preparation Tools
https://www.interviewcake.com/
https://coderbyte.com
Live Programming Challenge

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- Warm-up question, followed by more in-depth questions relevant to the work we do (e.g. image processing)
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Hiring Process – Step 5

5. Behavioral interview with management

Interview with at least one, sometimes every manager in the company.

Behavioral questions: Tell me about a time when...

• you took ownership of a project. Why did you do this?
• you had to adjust to changes over which you had no control.
• you had to communicate a really bad piece of news to your supervisor
• You worked on a project that completely failed. Why do you think it was a failure?
• Give an example of an important project goal you reached and how you achieved it.

Objective: Test behavior fit, values and way of working. Getting to know the candidate.
Final suggestions

- Do you research about the company
- Apply to few companies, but take it serious
- Try to get references
- Review code environment before coding interview, most common questions are online

Contact us on:
- david@airworks.io
- mia@airworks.io